VOL. 77 NO. 12

A mill executive speaks out to labor 61

Dan River's X-2. . . 63

Radioisotopes. . . . 96

textile bulletin

DECEMBER • 1951

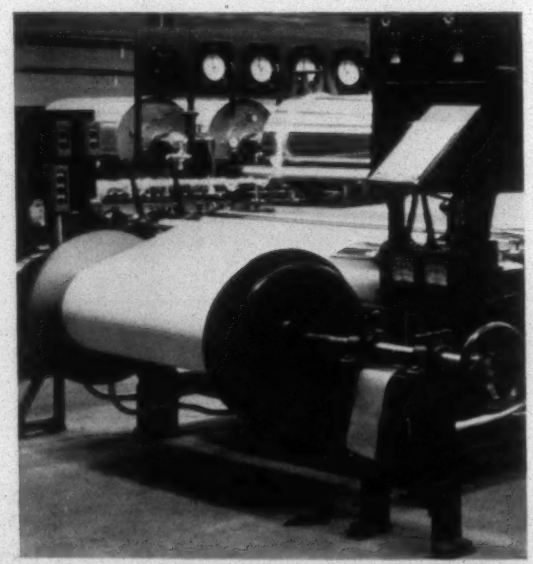
Sectional
INDEX

hat Others Saying 10
•
Watching Washington 31
•
Editorials 40
•
pening, Picking, rding & Spinning . 71
•
rp Preparation Weaving 85
•
eaching, Dyeing & Finishing 96
•
Maintenance, Engineering & Handling . 98
•
Personal News & Obituaries 103
•
Mill News 110
•
The Textile Industry's Use 114
•
uthern Sources Of Supply 132
•
Classified vertising 136

TEXTILE BULLETIN is published onthly by Clark Publishing ., 218 West Morehead St., arlotte 2, N.C. Subscription 1.50 per year in advance, $3 r three years. Entered as econd-class mail matter arch 2, 1911, at Postoffice, arlotte, N. C., under Act f Congress, March 2, 1897.

Slash your sizing costs

with CHEMICALLY TREATED ORR SLASHER CLOTH



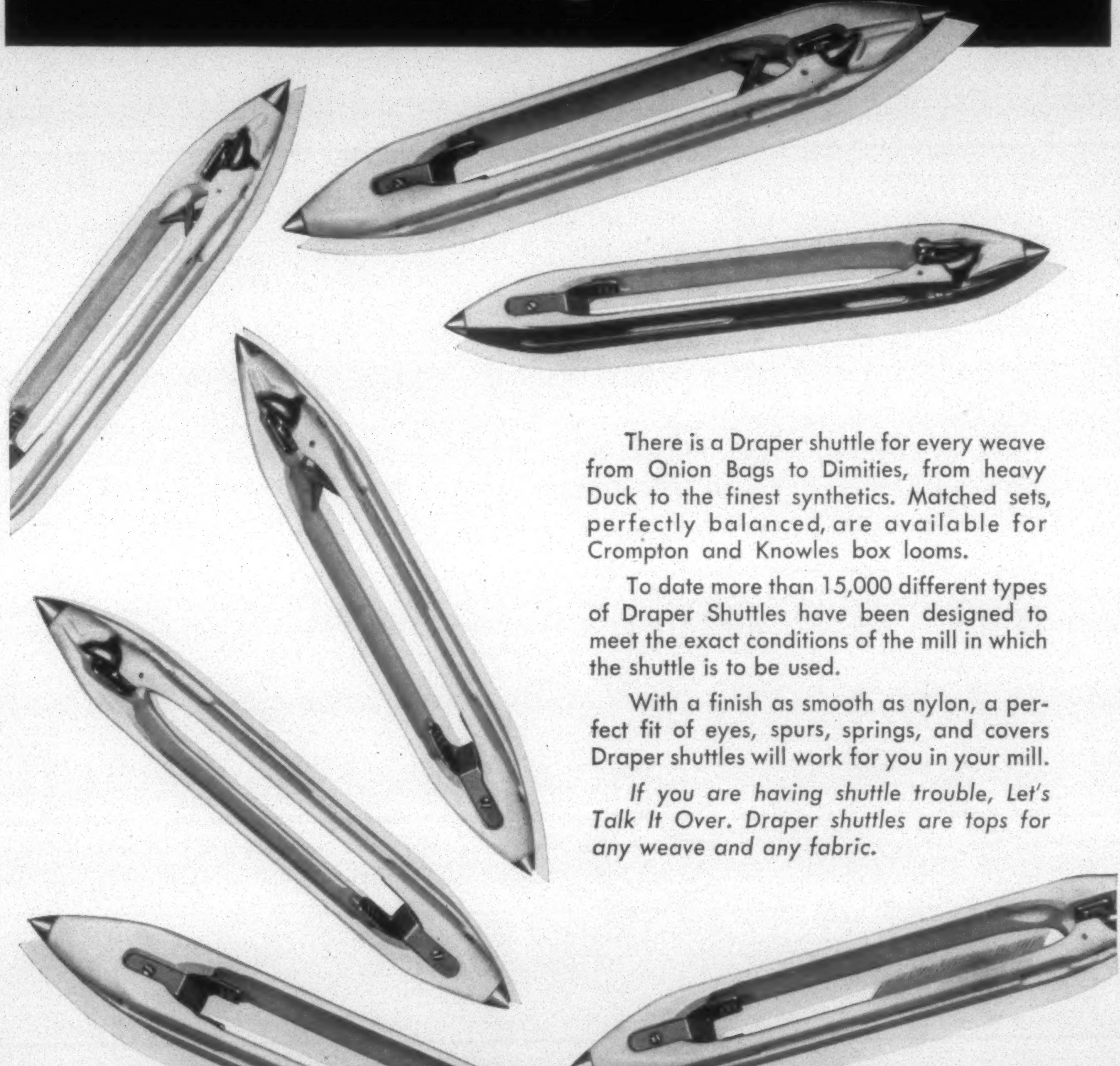
The Slasher Cloth that
- Resists bacteria and steam deterioration
- Holds its width
- Dresses the yarn properly
- Starts fast
- Lasts long
- Maintains level production

It's NEW! It's DIFFERENT! It's BETTER!

More And More Southern Mills Are Changing To ORR Slasher Cloth

THE ORR FELT & BLANKET CO., PIQUA, OHIO
Distributed by
OLIVER D. LANDIS, INC., 718 Queens Road, CHARLOTTE 7, N. C.
Exclusive Southern Sales Agent
[illegible] F. W. Coleman, P. O. Box 1393, Greenville, S. C.
Georgia and A[illegible]
New England Sales Agent: J. S. Fallow & Co., 279 Union St., New Bedford, Mass.

From Onion Bags to Dimities



There is a Draper shuttle for every weave from Onion Bags to Dimities, from heavy Duck to the finest synthetics. Matched sets, perfectly balanced, are available for Crompton and Knowles box looms.

To date more than 15,000 different types of Draper Shuttles have been designed to meet the exact conditions of the mill in which the shuttle is to be used.

With a finish as smooth as nylon, a perfect fit of eyes, spurs, springs, and covers Draper shuttles will work for you in your mill.

If you are having shuttle trouble, Let's Talk It Over. Draper shuttles are tops for any weave and any fabric.

D

DRAPER CORPORATION

ATLANTA, GA. HOPEDALE, MASS. SPARTANBURG, S. C.

THE WORLD'S LARGEST MANUFACTURERS OF AUTOMATIC LOOMS

"You're Right!

Your Business Is Different!"

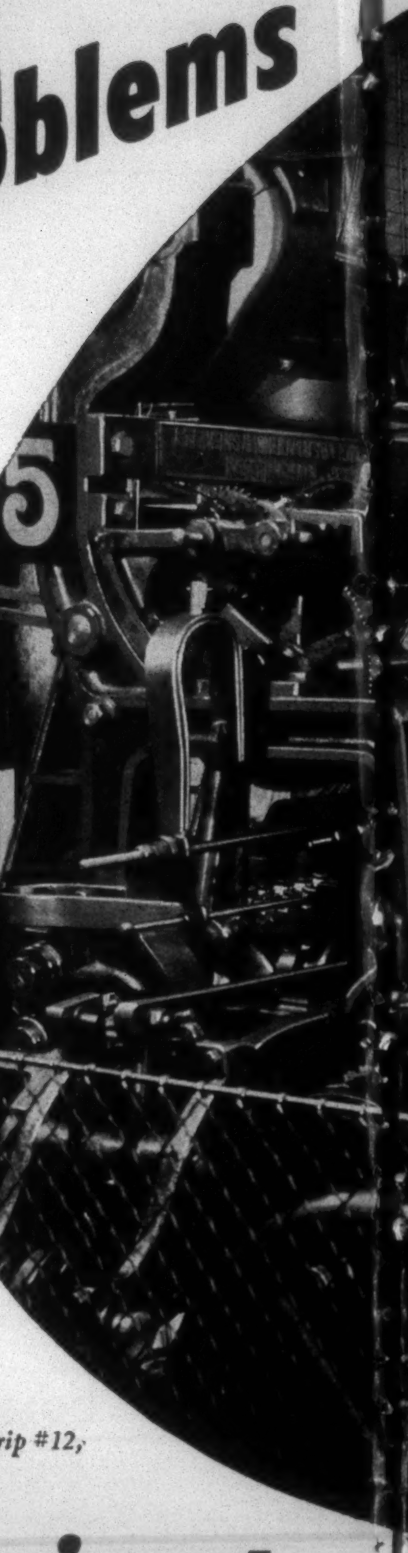
Each business has its own peculiar problems.

That is why Commercial factoring is so flexible—a modern method of financing—suited to your particular needs. Immediate working capital is made available through your accounts receivable. Cash is forwarded to you as shipments are made. Yet you sell on your regular terms. Credit losses and collection expense are assumed by us.

Let us tell you how Commercial factoring increases turnover and profits.

COMMERCIAL FACTORS CORPORATION

TWO PARK AVENUE, NEW YORK 16
EUGENE G. LYNCH, 80 FEDERAL STREET, BOSTON 10, MASS.
T. HOLT HAYWOOD, WINSTON-SALEM, NORTH CAROLINA



Fieldcrest Mill Cuts Wear, Ends Lubrication Problems

In Zion, Ill., Fieldcrest Mills, a Division of Marshall Field & Co., makes fine lace curtains and table cloths in cotton, nylon and orlon. Their lace weaving machines came from Nottingham, England, some as much as 50 years ago. With parts replacements so hard, if not impossible, to get, Fieldcrest felt it vital to get the finest possible lubrication protection.

The mill invited Sinclair engineers to study its problems. Sinclair drew up a complete lubrication program, calling for several specialized Sinclair textile lubricants.

Fieldcrest followed this program to the letter. It now reports the lubrication has materially cut wear on the weaving machines and reduced breakdowns and related headaches in the bleaching and finishing rooms. Hook wear and burning in the sewing machines are no longer a problem.

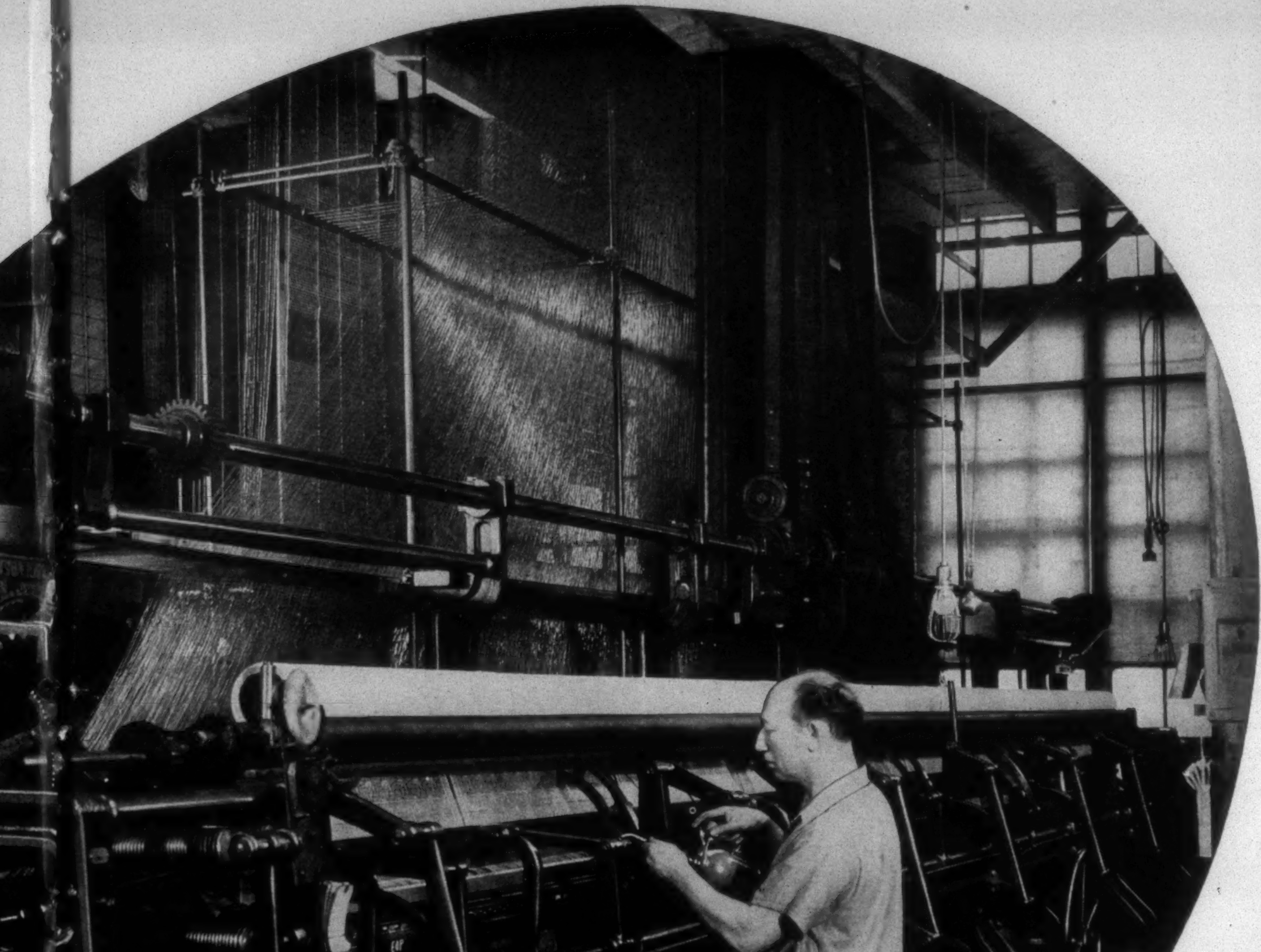
Perhaps Sinclair engineers and Sinclair lubricants can help cut wear and replacements in *your* mill. Why not investigate?

• • •

A lace weaving machine in Fieldcrest Mills, where Sinclair Lubricants are saving wear. Lubricants include Lily White Oil C, Valve Oil Light, No Drip #12, Bearing Grease AF #1, Shamrock® F, Rubilene® Light.

Sinclair Textile Lubricants

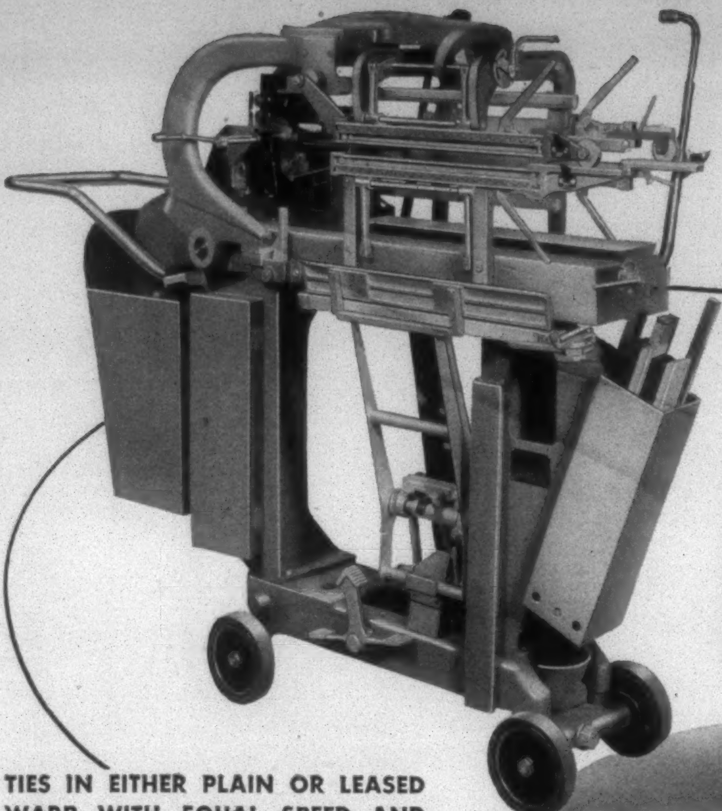
FOR LUBRICATION COUNSEL, SEE YOUR NEAREST SINCLAIR REPRESENTATIVE OR WRITE TO SINCLAIR REFINING



save wear, replacements

COMPANY, 600 FIFTH AVENUE, NEW YORK 20, N. Y.

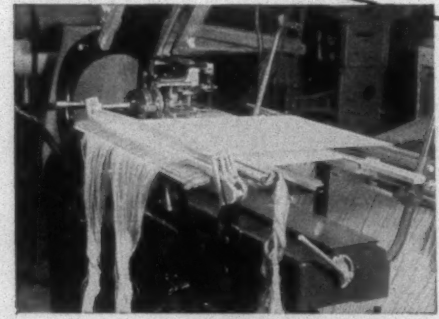
BARBER
COLMAN



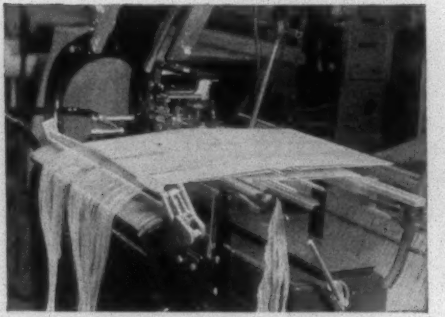
Reduce Costs!
Increase Production!
Improve Products!

TIES IN EITHER PLAIN OR LEASED WARP WITH EQUAL SPEED AND EFFICIENCY

BARBER-COLMAN
Portable
WARP TYING MACHINE



Model "LL" machine set up for tying in a plain cotton warp.



The same machine as above, now set up for a leased cotton warp.

A Barber-Colman PORTABLE Warp Tying Machine can be a *very profitable* investment for you. This machine offers a fast and accurate means for tying-in new warp *at the loom.* It can be handled in confined and hard-to-reach places and in loom alleys as narrow as 12". Overall production capacity averages 3500 to 4500 ends per hour, higher on high sley warps. Models are available to handle cotton, wool, worsted, silk, or synthetics (including monofilaments) and plain warps or leased warps or both. Tying is accurate and uniform and so much more efficient than common hand methods that the machine will pay for itself quickly in cost savings *even when not in constant use.*

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS • U. S. A.
FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND MUNICH, GERMANY

The "on-the-wall" test shows why famous Barreled Sunlight is America's outstanding paint value

You have to see it to believe it...

When you compare the price tag of a gallon of Barreled Sunlight with that of a gallon of any other good paint, there really isn't much difference. But, boy oh boy, when you put it on the wall, there is where you see the big advantage in value that you get with Barreled Sunlight.

For example, if you take a gallon of Barreled Sunlight and a gallon of any other good paint and thin each according to directions, you'll see that Barreled Sunlight gives you more paint ready for the brush. Which means, of course, you buy less paint.

But of greater importance, when you see how faster and easier a painter can cover a test area with Barreled Sunlight, you'll realize how much you can save in labor, which represents 80% of the cost of a painting job.

And finally, when you see how much better and brighter it looks after drying you'll be convinced that Barreled Sunlight will give you a better looking, longer lasting paint job for less money than any other paint.

Let our representative show you how an on-the-wall test can lead to important savings for you. Write and he'll call.

WE'LL BE AT THE **PLANT MAINTENANCE SHOW** PHILA. JAN. 14-17

BARRELED SUNLIGHT PAINT COMPANY
5-L Dudley St., Providence, R. I.

Barreled Sunlight

The Master Painter's Master Paint ®

In whitest white or clean, clear, wanted colors, there's a Barreled Sunlight Paint for every job

For over half a century the symbol of quality and dependability among paint buyers for leading industrial, institutional and commercial buildings

You've got to "stay in the running"
...to win any purse!

Sustained speeds with fewest stops . . . that's what wins on the Speedway...and in the modern weaveroom, where competition always begins (*and all too often ends*).

In both cases, *dependable* replacement parts ...*readily available*...are often the deciding factor.

And C&K Loom Parts are always dependable, readily available, uniform in quality.

So keep your weaveroom "on the track" and "in the running." When you order replacement parts, order *factory-duplicate* C&K parts that will continue to make it good business to say: "This Fabric is Woven in the U. S. A. . . . on Call-Box Looms built by C&K."

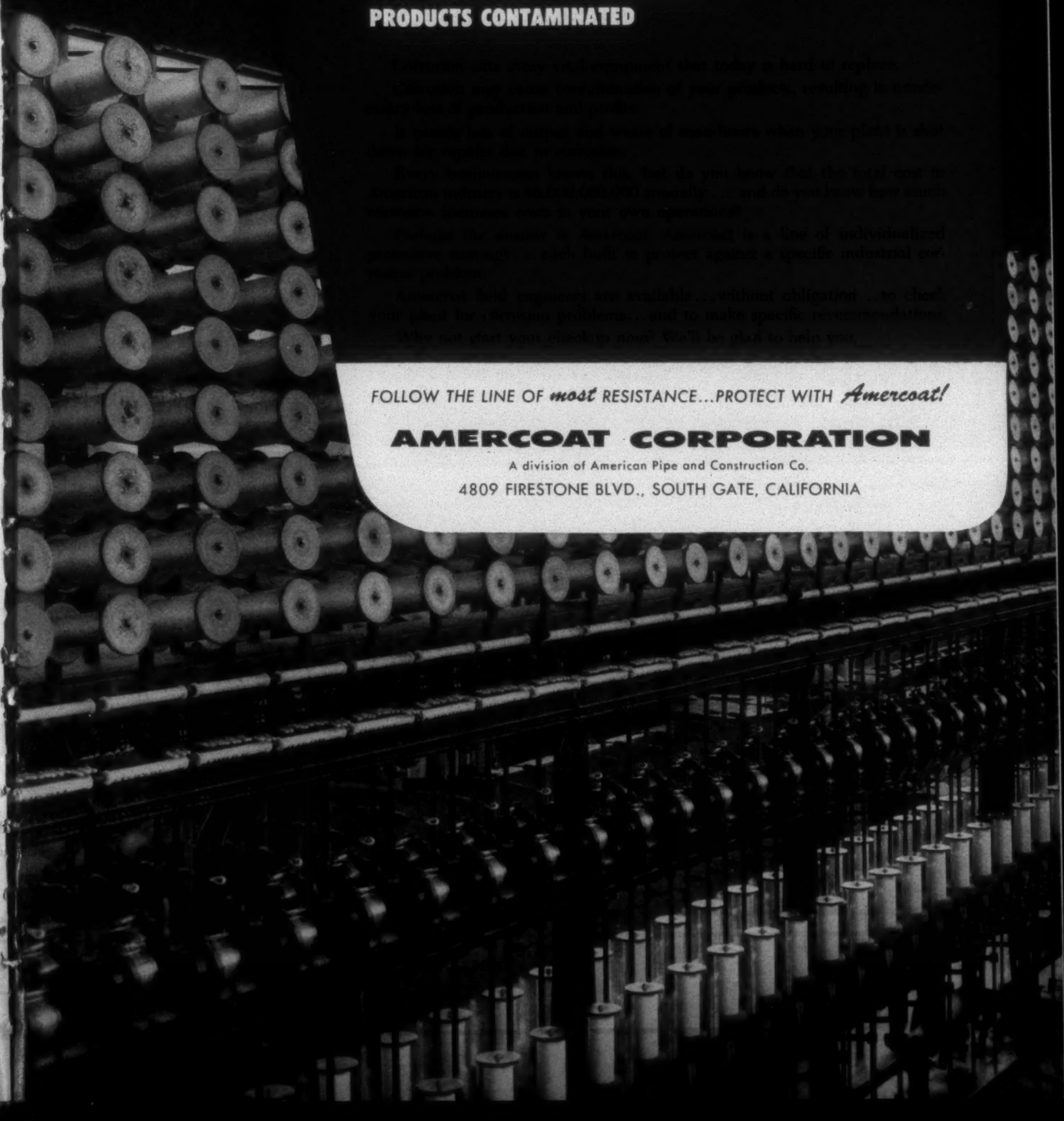
CROMPTON & KNOWLES LOOM WORKS, WORCESTER 1, MASS., U. S. A.
Philadelphia, Pa. • Charlotte, N. C. • Allentown, Pa. • Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

Keep Your Looms Running Right
...with C&K LOOM PARTS

C&K
A Loom for every Woven Fabric

This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Woven Fabrics

CORROSION costs the Textile Industry millions each year...



VITAL EQUIPMENT IS DESTROYED...
PRODUCTS CONTAMINATED

Corrosion eats away vital equipment that today is hard to replace.

Corrosion may cause contamination of your products, resulting in unnecessary loss of production and profits.

It causes loss of output and waste of man-hours when your plant is shut down for repairs due to corrosion.

Every businessman knows this, but do you know that the total cost to American industry is $6,000,000,000 annually . . . and do you know how much corrosion increases costs in your own operations?

Perhaps the answer is Amercoat. Amercoat is a line of individualized protective coatings . . . each built to protect against a specific industrial corrosion problem.

Amercoat field engineers are available . . . without obligation . . . to check your plant for corrosion problems . . . and to make specific recommendations.

Why not start your checkup now? We'll be glad to help you.

FOLLOW THE LINE OF *most* RESISTANCE...PROTECT WITH *Amercoat!*

AMERCOAT CORPORATION
A division of American Pipe and Construction Co.
4809 FIRESTONE BLVD., SOUTH GATE, CALIFORNIA

Sharing Responsibility

THE greatest shadow across our way is cast by the widespread abandonment of those "pure and immutable principles of private morality" which Washington in his first inaugural address warned must be the "foundation of our national policy." The extent to which we have departed from those principles far transcends in vital importance to the future of our republic and to the preservation of our freedom, any of the more tangible and practical problems we have been discussing.

It is not enough to stand aghast at revelations of mink coats on government secretaries. It is not enough to recoil at exposures of internal revenue scandals and corruption in R.F.C. loans, to be revolted by nationwide crime syndicates protected by prominent politicians, or shocked by basketball bribery.

If we are true to our American selves, we will look behind the sensational headlines and see how far we have fallen. For every influence peddler there must be an influence buyer. For every bribe-taker there must be a bribe-giver. For every tax-fixer there must be a tax avoider. For every corrupted official there must be a corrupter. For every crooked politician there must be tens of thousands of politically lazy and morally apathetic citizens.

It truly is a sorry, shameful and sordid picture. And all of us—all Americans—must share responsibility for the atmosphere in which such activities were born and are permitted to flourish. One does not have to be a public official to be faithless to the public trust. One does not have to be a bribe-giver or a bribe-taker to strike a devastating blow at freedom and our free institutions.

It is faithless to the public trust when less than one-half of those eligible vote in a presidential election. It is un-American defeatism and it is a repudiation of a citizen's first obligation to shrug our shoulders and say: "What's the use of voting—all politics are crooked anyway."

Bad officials are elected by supposedly good people who do not vote. In a republic such as ours the ballot is the patriot's most effective weapon of protest against mis-government and other abuses of power or position which threaten individual freedom. As Abraham Lincoln once said: "To sin by silence, when they should protest, makes cowards of men." And as other great Americans have said, cowards never have won—nor do they deserve—freedom.

We encourage waste and extravagance and corruption in Washington when we ignore official waste and extravagance and corruption in our own local governments. It is gross immorality to cry publicly for rock-bottom economy in the Federal Government and at the same time lobby quietly for federal pork-barrel local projects. In recent years, there has been a shocking acceptance of the cynical philosophy that anything in public or private life can be justified if it is only barely within the statute.

That's the philosophy used to justify public corruption and individual immorality, which down through history has wrecked great civilizations and cost proud peoples their freedom. In that weakening of traditional American principle lies the great hope of those abroad and those here at home who would wreck America.

In this of all countries and in this of all times, we as a free people must once again recognize that our hope to remain free depends upon our individual and national obedience to the spirit as well as to the letters of laws written to keep us free.—*William H. Ruffin,* president and treasurer of Erwin Mills, Inc., Durham, N. C., in an address Dec. 7 as retiring president of the National Association of Manufacturers.

Helping Out

THIS is a story of how men on the production line at home are helping men on the fighting lines in Korea. Everyone should know by now that there is a pressing need for blood and that it is a need that increases daily. But one of the problems of the Mid-South Defense Blood Center has been to schedule a mobile unit at a large industrial plant without disrupting normal operation of the plant.

So Abe Goodman, vice-president of the American Finishing Co., worked out a plan whereby employees could be released from their production jobs long enough to give blood. The result was that 116 pints of blood were donated in six hours.

To accomplish this the American Finishing Co. contributed 300 man-hours. Employees donating blood were paid for the time they were away from their machines. — *The Commercial Appeal,* Memphis, Tenn.

Who Owns Our Mill?

QUITE a few years ago the man who managed a company usually owned it, too. Today, many people believe that the president of a company and other executives who help to run a business are its owners, too. But that is far from true here or at the majority of the other companies in operation throughout the country.

Big business today is made up of a lot of little businesses operating together for the benefit of all. Take the American Telephone and Telegraph Co. as an example. It is a company with one million owners from every walk of life. One family in every 45 has a direct financial interest in it. It is a business with a service so useful to so many of us that one million persons have invested their savings to enable it to grow and now are sharing in its profits.

General Motors is another company with many owners. It is owned by 450,000 people. General Electric has 250,000 owners.

Although smaller in size in comparison with the companies mentioned above, Marion Mfg. Co. is operated on the same principle. We have 116 owners or persons owning stock in our company. These persons are called stockholders or shareholders because they hold shares of stock in our business.

There are 25,000,000 such stockholder-owners in industrial companies in America today. The average American stockholder is a person of moderate means. More than likely he or she will be a doctor, lawyer, workman, school teacher, or housewife.

We here owe our jobs to these people. They thought well enough of the ability of the company and its

FROM CIBA RESEARCH

AUXILIARY PRODUCTS

UVITEX RBS

LYOFIX CH

LYOFIX SBW CONC.

SAPAMINE MS

DYESTUFFS

NEOLAN BLUE 3R . . .
Flavine GFE
Violet 5RF

CIBANONE
BRILLIANT PINK 2R PASTE
BROWN RV DOUBLE PASTE
GOLDEN ORANGE 3G PASTE
RED FBB DOUBLE PASTE
RED RK DOUBLE PASTE

CIBA RED
2B DOUBLE PASTE

CIBACETE
RED B
TURQUOISE BLUE G
PRINTING BLUE 2B

CLOTH FAST RED 2BL
AND BORDEAUX B

COPRANTINE BLUE BLL
BORDEAUX 2BLL CONC.
RUBINE RLL
VIOLET BLL

CHLORATINE
FAST YELLOW 7GL

ANOTHER BANNER YEAR!

CIBA research and product development are a continuous and active part of our service. As direct evidence of this, here at CIBA we have made available within the past year these timely additions to our product listings.

We invite all users of dyestuffs and textile processing materials to consult with us on how these new CIBA developments can help to increase processing efficiency, simplify handling and improve end-product results at lowered costs.

CIBA

CIBA COMPANY INC.

627 GREENWICH STREET, NEW YORK 14, N. Y.

Boston Chicago Charlotte
Providence San Francisco Philadelphia

management to risk their savings by buying shares of our stock.

It is the stockholders' money which provides the plant, buys cotton, rayon and other materials, and the machinery and equipment with which we work. It costs the stockholders of our company approximately $7,000 per employee to operate, and that, by the way, does not count the payroll they have to pay us.

American business management today is seldom owner-management. Instead, the officers of the company are employed by the stockholders to run the company. These officers are given the authority to hire employees to run the machinery and equipment, purchase the raw materials and sell the goods. Both officials and employees may own shares of stock in a company.

One might ask, "How do the stockholder-owners share in the control of our company?" Here's the answer. Every year the stockholders of Marion Mfg. Co. meet for the purpose of electing a board of directors to act as their representatives for the next business year. The board of directors then elects officers of our company. These officers are assigned the duty of making the day-to-day business decisions which keep the mill operating.

So, the officials of Marion Mfg. Co. are responsible in their actions to the board of directors. The board of directors is elected by the stockholders. The stockholders are the owners of the mill.

Now every once in a while you hear one say, "I don't think a company should make so much money. They make 25 to 50 per cent profit." That's not true. The average profit made by all the companies in the United States last year amounted to approximately five to six cents on the dollar.

Why does a company have to make even five or six cents on the dollar? That question is easy to answer. Overlooking the fact that a company must buy new equipment and machinery and other necessities with which to operate, let's look at the real season.

To get people to risk their savings in business enterprise, instead of putting their money in the bank or under the mattress, business must offer some inducement. So, when profits are adequate the stockholders receive small payments . . . called dividends on their shares. But if profits are not adequate, or the company takes a loss, stockholders do not receive dividends from the money they invested.

Thus, a company without profit has no stockholders . . . no board of directors . . . no officers . . . no employees . . . nothing. — *Picks and Hanks,* Marion (N. C.) Mfg. Co.

NON-FLUID OIL
TRADE MARK REGISTERED

You don't need an expert when you use NON-FLUID OIL

Don't be lulled to sleep by the so-called expert theories that one grade of lubricant sold on a "specification basis" will be the answer to all your lubrication problems. *Don't you believe it!* There are just too many variables, such as temperature, humidity, operating speed and age of machine, to have one lubricant satisfactorily lubricate *all* of even just one type of textile machine.

Effective lubrication is obtainable only when the lubricant remains in the bearings. The yard stick that measures this effectiveness is performance and performance only.

NON-FLUID OIL is a specialty lubricant and sold only on performance standards. Its superiority over "straight run specification" oils and greases made it a target for all oil and grease companies to shoot at.

There's a grade of NON-FLUID OIL for every one of your textile machines in their present condition. "Service Test" the NON-FLUID OIL grade we recommend right in your own mill. Let it prove its superiority over "straight-run specification" oils and greases. Write for free sample and descriptive bulletin.

NEW YORK & NEW JERSEY LUBRICANT CO.
292 Madison Ave., New York 17, N. Y. Works: Newark, N. J.
Southern District Manager: FALLS L. THOMASON, Charlotte, N. C.

WAREHOUSES: Atlanta, Ga.—Birmingham, Ala.—Charlotte, N. C.—Chicago, Ill.—Columbus, Ga.—Detroit, Mich.—Greensboro, N. C.—Greenville, S. C.—Providence, R. I.—St. Louis, Mo.

55th ANNIVERSARY NON-FLUID OIL

DON'T YOU BELIEVE IT! If anyone approaches you with products they swear to be exact imitations of NON-FLUID OIL, at a lower price, don't you believe it! The basic factors in all industrial production preclude paying a little and getting a lot . . . Remember, you only get what you pay for! NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

A Friend To Man

THE industrial empire of Benjamin B. Gossett, before he sold it shortly after the war, spread across the two Carolinas. The friends who were attracted to him because of his warmth and friendly personality spread across the whole nation.

To say that he was one of the most popular citizens of the Carolinas, both inside and outside the realm, is to put it mildly. The old saying that the way to get a friend is to be a friend described the philosophy of Mr. Gossett. He had thousands of friends because he was a friend to so many people.

Nor were those who liked and loved

him confined to high places. Nowhere was he more popular than among the men and women who worked for him in the textile industry. During the last war an "E" award was given one of his South Carolina plants by the Army and the Navy. When he and Mrs. Gossett attended the ceremonies they were presented with bunches of home-grown flowers by many of the residents of the village who remembered what good neighbors they once were.

Benjamin B. Gossett lived a rich and full life. As an industrialist he was an obvious success. But although he accumulated much wealth he was ever an humble and gracious citizen. He was always a yeoman to worthy causes, giving his time, money and effervescent personality without ostentation.

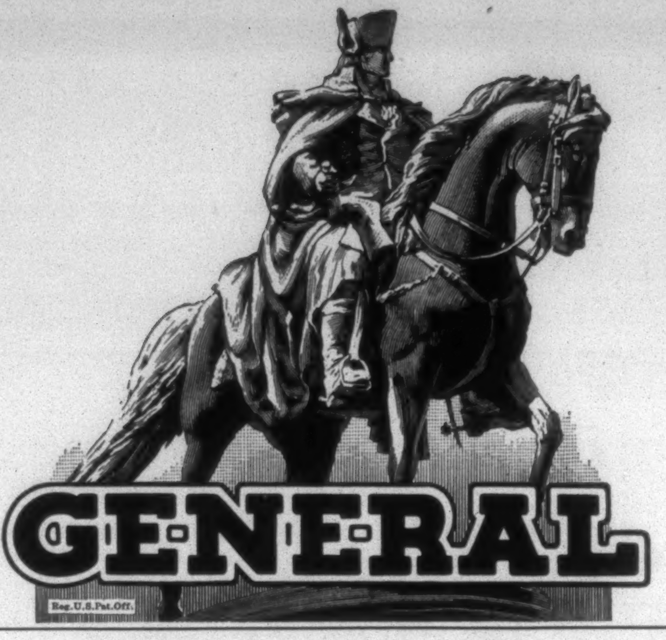
Since he retired from the textile industry several years ago Mr. Gossett spent much time in travel. Wherever he went he was an ambassador of goodwill for the Carolinas. And he never forgot his friends back home, even though it was only a post-card that held the tie. The world will not seem so bright and cheerful with Ben Gossett away. Truly he "lived by the side of the road and was a friend to man."—*Greenville* (S. C.) *News*.

Synthetic Textiles

OVER a long period of years we Texans thought that the spinning and weaving of our cotton crop was our best opportunity for industrial development. But the big textile mill migration from New England settled in the Southeastern states and Texas turned to the foreign cotton market. Today we process only a small percentage of our cotton crop. But now a new opportunity to get into the textile business presents itself.

At the South-Wide Chemical Conference it was generally predicted that a big increase in the production of synthetic fibers is ahead and that most of this development will be in the Southern states. The opinion seemed to be that it would be in the Southern area where cotton milling has had its principal development.

There would be some logic in that because of the skills available in the cotton spinning area. But Texas has a much greater opportunity to participate in the new chemical fiber industries than it ever had to develop cotton



RODA

High grade gas, by-product, steam and household stoker coal from Wise County, Virginia, on the Interstate Railroad.

DENDRON

High grade gas, by-product, steam and domestic coal from Wise County, Va., on the Interstate Railroad.

STONEGA

High grade, high volatile steam and by-product coal from Wise County, Va., on the Interstate Railroad.

GLENBROOK

The Premium Kentucky High Splint unmatched for domestic use. Produced in Harlan County, Kentucky, on the L. & N. Railroad.

COKE

Roda and Stonega from Wise County, Va.

WESTMORELAND COAL COMPANY'S CRITERION COAL

High grade gas, by-product, steam and domestic coal—Pittsburgh seam from Irwin Basin, Westmoreland County, Pennsylvania, on the Penna. Railroad.

WESTMORELAND COAL COMPANY'S HAMPTON COAL

High volatile domestic, steam and by-product coal from Boone and Logan Counties, W. Va., on the Chesapeake & Ohio Ry.

CROZER

Genuine Pocahontas from McDowell County, W. Va., on the Norfolk & Western Railway.

LYNCO

High fusion coking coal for by-product, industrial stoker and pulverizer use from Wyoming Co., W. Va., on the Virginian Ry.

ANTHRACITE

Hazle Brook—*Premium Lehigh*
Raven Run—*Premium Mahanoy*

Capable engineering personnel and the experience gained through long and varied marketing activity assure proper application of one of the above brands and effective servicing of any fuel requirement.

General Coal Company
123 SOUTH BROAD STREET, PHILADELPHIA 9, PA.
CABLE ADDRESS, GENCO
BRANCHES:
BLUEFIELD, W. VA. BUFFALO CHARLOTTE, N. C. CINCINNATI
NEW YORK NORFOLK PITTSBURGH

NEW Fairbanks
Series "23" Double Ball Race
SWIVEL CASTER

STRONGER ON EVERY POINT

The NEW Fairbanks Series "23" Double Ball Race Swivel Caster* line is designed for greater load carrying capacity in the medium duty field.

1 **NO KING-PIN** the No. 1 weak spot of ordinary casters. It's eliminated!

2 **"LOCK-WELD" CONSTRUCTION** Instead of being a separate piece, projection welding makes lower raceway integral with top plate. Retains perfect alignment!

3 **PATENTED LEG DESIGN** disperses shocks and overloads over a larger segment of raceways. Resists distortion. Lasts longer!

4 **LARGER SECONDARY RACEWAY AND BALLS** provide tremendously increased swiveling efficiency and greater shock absorption of overloads. Easier working!

5 **COINED RACEWAYS** insure smoother operation through extra hardness. Improve with use!

6 **PRESSURE LUBRICATION** by Zerk Fittings reduces friction and wear!

*PATENTED

Rigid Casters, Series "33" in matching heights

THE **Fairbanks** COMPANY
393 LAFAYETTE STREET • NEW YORK 3, N. Y.
Branches: New York 3 • Pittsburgh 22 • Boston 10 • Rome, Ga.

TRUCKS • VALVES • DART & PIC UNIONS • CASTERS

milling. In our forests and woodlands we have an abundance of cellulose to make the fiber. Even more important, we have the natural gas which is highly valuable in the chemical industries. For these reasons we already have Du Pont, Celanese and several other synthetic fiber processing plants in Texas.

Texas' industrial, commercial and scientific organizations should look into this new opportunity for textile development in our midst. If synthetics must increasingly compete with cotton, then we should be in on the competition.—*Dallas* (Tex.) *Morning News.*

Here We Go Again

FOLLOWING up the recent expose in the Memphis *Commercial Appeal* on the fickleness of the Office of Price Stabilization in dealing with cotton textile prices, the chief of the textile branch now is quoted as assuring the industry that no rollback of ceiling prices is anticipated.

The official, Mr. Robison, said a certain construction is "presumably" selling at only about a half cent above the O.P.A. ceiling in vogue at the close of World War II, since which time cotton has gone up a couple of cents a pound and labor costs have risen 57.7 per cent and in relation to the January ceiling of 28 to 29 cents current market prices are off about 30 per cent.

Going further into this business, Mr. Robison said one suggestion that might be feasible would establish ceilings on an individual item basis, predicated on an average of ceiling prices but adjusted downward to 90 per cent of the May 19 raw cotton market price (of 40.56).

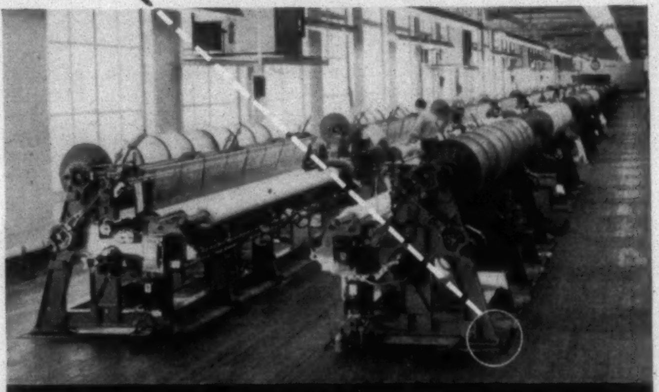
No doubt Mr. Robison knows what all this means, but to the average layman he might be speaking in the language of Homer.

He further explained that the textile ceiling structure would be tied in with raw cotton costs and automatic escalation in manufacturers' ceilings would be permitted if raw cotton rose above the May 19 price, and that at the present raw cotton price textile ceilings would have attained maximum escalation permitted. Thus, as raw cotton dropped textile ceilings would also drop until the 90 per cent of the May 19 price was reached.

Perhaps this explanation of a "suggested plan" might well have been a trial baloon to see how the industry would react.—*The State,* Columbia, S.C.

Save Plant Floors...

Protect Machinery



Reiner Tricot Knitting Machines mounted on UNISORB at the up-to-the-minute modern mills of New Bedford Knitting Company, New Bedford, Mass.

Mount ALL Your Machines the Modern Way... ON UNISORB®

Now your floors need never again suffer the scarring that goes with old-fashioned machine-mounting methods.

Because UNISORB-Mounting requires no bolts, no lag screws, you can say good-bye to destructive floor drilling forever.

What's more, UNISORB not only saves your floors from drilling, but it also saves them (as well as buildings) from much of the transmitted machine vibration. And, because UNISORB eliminates 60-85% of this vibration, it increases the life of the machinery itself, decreases the need for frequent maintenance and down-time.

We think you'll agree that *now's* the time for you to

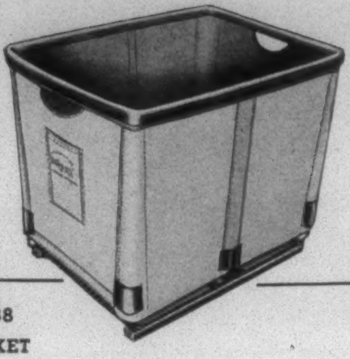
LOOK FOR THE RED CENTER **AND UNISORB BRAND MARK**

Write:

THE FELTERS COMPANY
210-T SOUTH STREET, BOSTON 11, MASSACHUSETTS

Offices: New York, Philadelphia, Chicago, Detroit, St. Louis
Sales Representative: San Francisco
Mills: Johnson City, New York; Millbury, Mass.; Jackson, Mich.

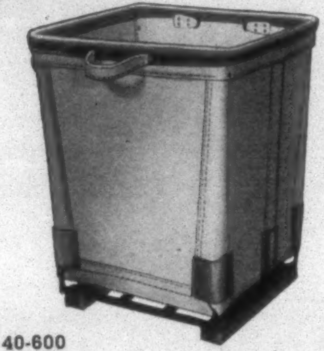
GET THE FACTS... ALL THE FACTS... ON UNISORB®—TODAY!



No. 40-638
DOFF BASKET

No. 10-214
FLAT SHIPPING BAG

DANDUX EASIER-TO-HANDLE BASKETS, BAGS & TRUCKS GIVE YOU PERFORMANCE PLUS!



No. 40-600
SQUARE BASKET

No. 40-740
TRUCK

DANDUX CANVAS HANDLING EQUIPMENT — Proven In The Mill!

SEND TODAY FOR DETAILED INFORMATION THAT WILL SAVE YOU MONEY

C. R. DANIELS, INC.
4900 Wetheredsville Rd.
Baltimore 16, Md.

I am interested in receiving without obligation detailed information on Dandux Canvas Handling Equipment.

NAME ____________________
ADDRESS ____________________ ZONE ________
STATE ____________________

LONGER-LASTING CANVAS PRODUCTS
LIGHTER, SMOOTHER, STURDIER

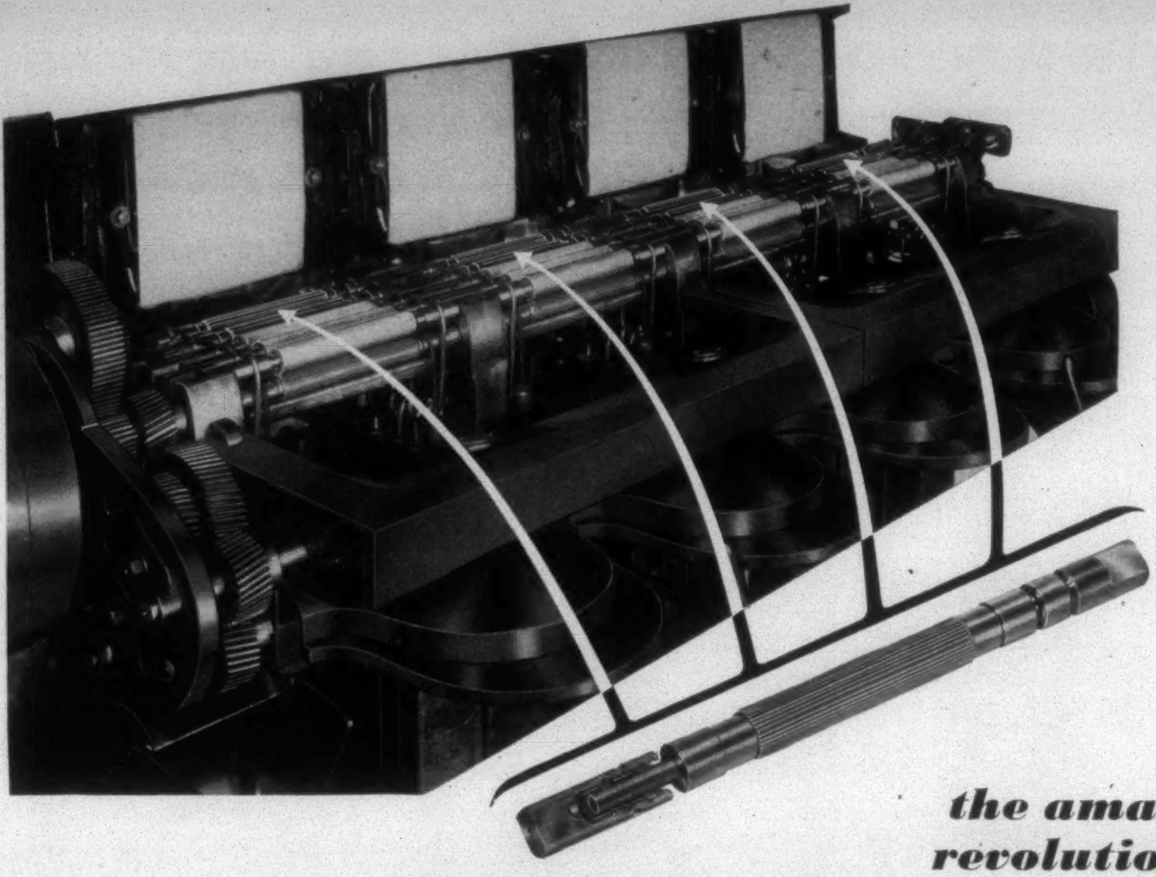
Dandux Canvas Handling Equipment has proven best under working conditions. Modern design techniques plus the latest in compounding and treatments combine to make Dandux Canvas Products superior.

Send in the coupon today for the latest catalog literature on these "performance PLUS" products.

DANDUX

C. R. DANIELS, INC.

121 E. Third Street, Charlotte 2, N. C.
9 S. Vandeventer Ave., St. Louis 8, Mo.
5553 Baltimore Ave., Philadelphia 43, Pa.
75 West Street, New York 6, N. Y.



the amazing, revolutionary

RGM DRAWING FRAME ROLL

DEVELOPED and PRODUCED by GOSSETT

makes an old drawing frame better than when new!

More About the RGM METALIC DRAWING ROLL

The flutes and collars have been so hardened by the GOSSETT exclusive method that even a steel file will not cut them. The flutes on the RGM roll are so precision made that no tool marks can be found. The tolerance on the flutes, collars, and neck is plus or minus .0005.

How can we make an old Drawing Frame better than when new? The photograph above shows how GOSSETT technicians changed this old frame from one with 4 rolls 6 ends up to one with 5 rolls 8 ends up. The first, second, and third line rolls, top and bottom, are common rolls made by GOSSETT . . . the fourth and fifth line rolls are the amazing, newly developed RGM metallic rolls made by GOSSETT and which are so hard that even a steel file cannot cut them! The set-up is of graduated pitch flutes.

During the re-building process more things happened to the old Drawing Frame. The top rolls were equipped with GOSSETT roller bearing shells (there are none better) . . . so this old frame will now draft 8 to 11. Further, we installed new stands, new calender rolls, new tension train of spiral gears and studs, new drafting gears and studs, and re-built the coilers, can tackles, and installed new trumpets. Yes . . . it's an old Drawing Frame better now than when new. Takes know-how and equipment. GOSSETT has both PLUS the amazing and exclusive RGM metallic roll.

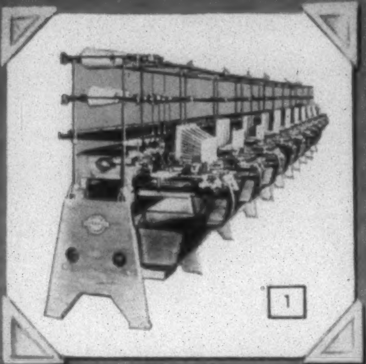
GOSSETT will also re-build Drawing Frames with the 4-roll system in the same manner.

Write for full particulars and estimated cost

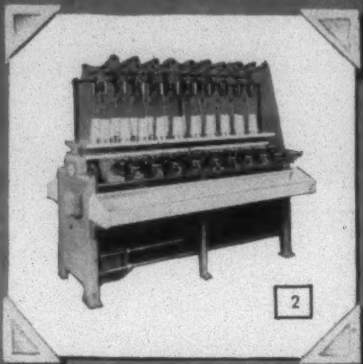
B. W. GOSSETT, President E. C. MASON, Sales Manager
D. W. SMITH, N. C.-Va. Representative

GOSSETT MACHINE WORKS, INC.
GASTONIA, NORTH CAROLINA

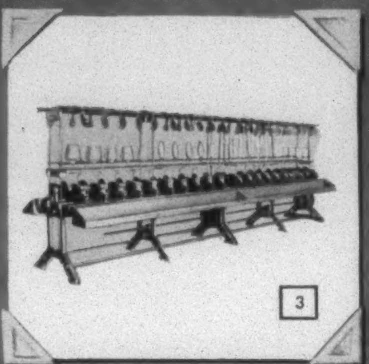
Before You Order Filling, Quill, Braider Bobbin or Thread Winders



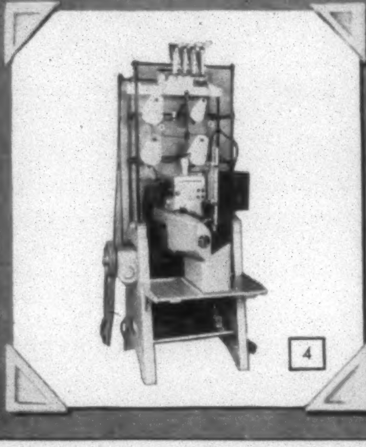
1



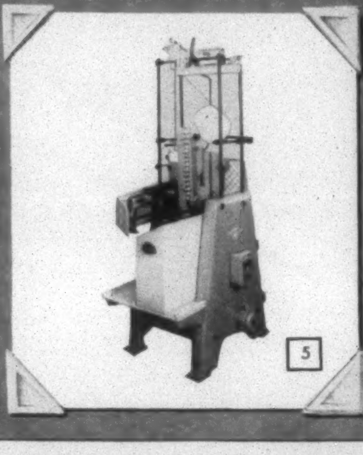
2



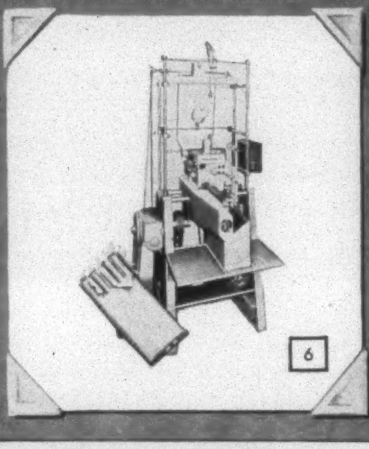
3



4



5



6

. . . Investigate the FOSTER-MUSCHAMP Line

(Made to American Standards)

1. AUTOFILL. A flexible, automatic winder for cotton, wool, synthetics and other fibers, it will wind any type filling bobbin, tube or quill from 3" to 12" at speeds up to 6,000 r.p.m. and in either direction. Supplied in gangs of 4-40 spindles, each 4-spindle unit has an individual automatic control, bunch builder, diameter control-mechanism (eliminates builder wheel), traverse cam, layer-locking device and bobbin-length sizing mechanism. On average counts, up to 160 spindles can be tended by one operator.

2. FILLWINDER. A semi-automatic individual-spindle, high speed filling winder built in units of 20 spindles. Supplied with or without spindles and bunch builders. Equipped with new type three-speed V-belt drive which gives three ranges of speeds within 2;000-6,000 r.p.m. Slow start. New 6-point cam makes possible lower cam speeds and provides positive layer-locking to reduce sloughing while weaving. Five standard traverses from 1$\frac{3}{16}$" to 2". Wind ratio adjustable to 5$\frac{1}{2}$, 7, 11, or 22. Bobbin length can be varied from 6"-9$\frac{1}{2}$". Creels available to wind overend from cones, cheeses or bobbins, or by unwinding skeins.

3. SUPERFILL. A high speed, non-automatic, single spindle cop winder for producing coreless filling yarn package. Winds cotton, linen, spun rayon, blends, jute and wool in both fine and coarse counts at speeds over 500 ft. per min. Superfill packages are used in non-automatic looms and in automatic shuttle-changing looms and contain 2-3 times as much yarn as is normal on direct-spun filling bobbins. Winds on a bare spindle or a cop bottom base for regular bobbin-type shuttle. Built in units of 20, 40 and 60 spindles with each spindle a complete unit. Various types of supply equipment permit a variety of supply packages. Package diameter adjustable up to 1$\frac{9}{16}$" and length up to 10".

4. AUTO-BRAID. A fully automatic machine for winding braider bobbins with traverses from $\frac{13}{16}$" to 5$\frac{1}{2}$" and diameters up to 2", and with spindle speeds up to 5,000 r.p.m. Self-contained single spindle type winder heads with adjustable gainer drive. Motor driven — 1/10 h.p. per spindle. Single or multi-end winding. Quick acting stop motion. Automatic yarn measuring device with visual graduated scale. Adjustable magazine which holds 20 average size bobbins per spindle.

5. AUTO-QUILL. A fully automatic machine for winding 1 to 4 ends on stick quills with traverses from $\frac{13}{16}$" to 5$\frac{1}{2}$" and with straight or tapered ends at speeds up to 2,500 r.p.m. — flange quills up to 5,000 r.p.m. Adjustable magazine holds 40 average size quills. Instantaneous stop motion. Yarn measuring device and visual scales for reading traverse length and yarn length. Motor driven — 1/10 h.p. per spindle.

6. AUTO-THREAD. A fully automatic machine for winding single end sewing thread to spools with traverses from $\frac{13}{16}$" to 5$\frac{1}{2}$" and with maximum diameter of 2". Motor driven — 1/10 h.p. per spindle. Quick acting stop motion. Winding heads of self-contained, single spindle type with adjustable gainer drive. Yarn measuring device with visual graduated scale. Adjustable magazine holds 30 average size tubes. Speeds up to 2,500 r.p.m. Separate bulletins describing each of these machines on request.

FOSTER F MUSCHAMP

FOSTER MACHINE COMPANY
Westfield, Mass., U. S. A.

Southern Office, Johnston Bldg., Charlotte, N. C.; Canadian Representative, Ross Whitehead & Co., Ltd., 1475 Mountain St., Montreal, Que.; European Representative, Muschamp Taylor Limited, Manchester, England.

"Tycol Armitage boosts bearing life... smooths the way for faster, heavier loads"

Of course! Tycol Armitage Bearing Grease "stays put" ... keeps anti-friction bearings running smooth and cool. Its high stability makes it suitable for sealed anti-friction bearings that must last the life of the equipment.

Tycol Armitage possesses exceptional resistance to oxidation. The dependable lubricating ability of this quality grease lengthens bearing life and cuts down maintenance costs. Call your nearest Tide Water Associated office for further information.

TYCOL

INDUSTRIAL LUBRICANTS

Boston • Charlotte, N. C. • Pittsburgh
Philadelphia • Chicago • Detroit
Tulsa • Cleveland • San Francisco

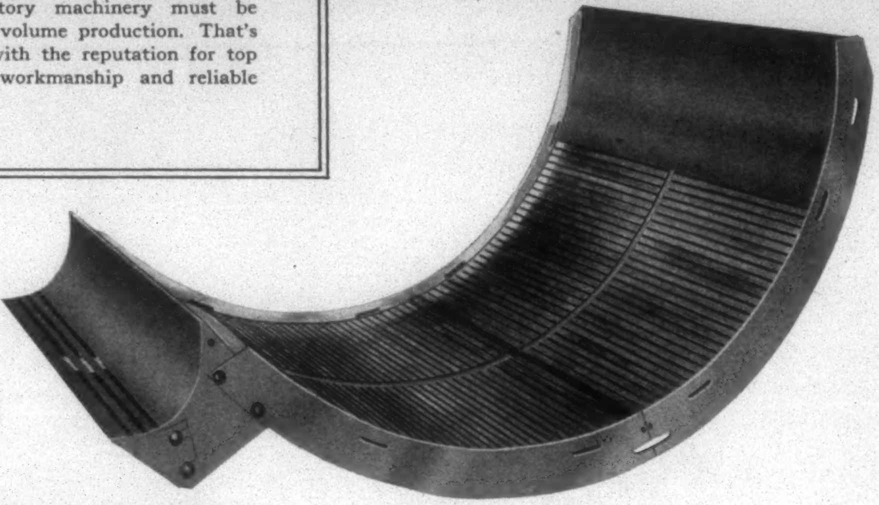
TIDE WATER ASSOCIATED OIL COMPANY

17 BATTERY PLACE - NEW YORK 4, N.Y.

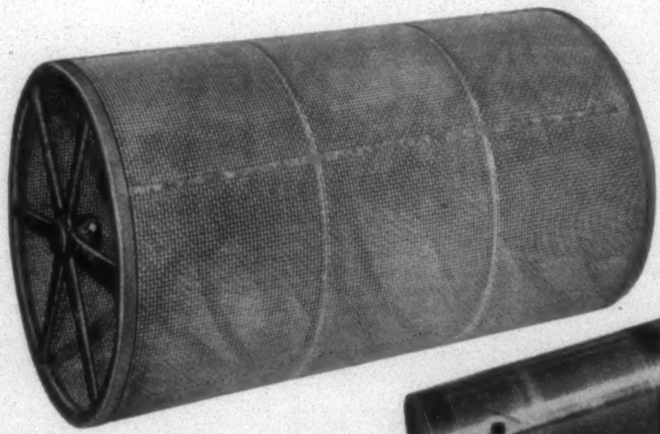
SEND FOR A FREE COPY OF "TIDE WATER ASSOCIATED LUBRICANIA"

MORE PRODUCTION AT LOWER COSTS with GASTONIA TEXTILE SHEET METAL PARTS

The quality and the profit of your end product starts at the beginning—where preparatory machinery must be geared for efficient, economical volume production. That's our job—a job for specialists with the reputation for top quality products, painstaking workmanship and reliable service.

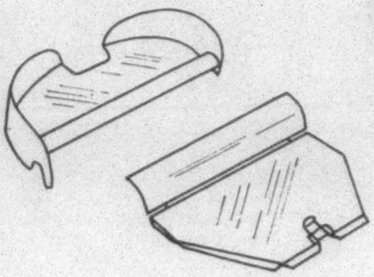


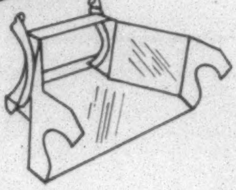
Standard type rib or perforated Card Screens are precision built on special jigs. Every screen is inspected and double checked for accuracy and tolerance.

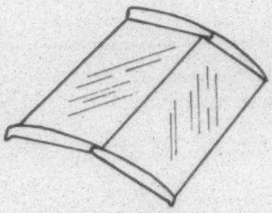


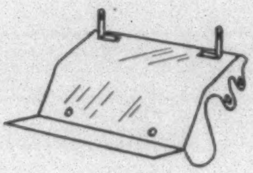
Picker, Condenser and Waste Machine Screens of maximum strength and durability are constructed of the best materials available.

New and rebuilt Cylinders are dynamically balanced to reduce vibration to an absolute minimum.









Years of practical experience —the finest of raw materials —and precision machinery in the hands of skilled workmen go into every product.

GASTONIA TEXTILE SHEET METAL WORKS, Inc.
GASTONIA, NORTH CAROLINA
A SHEET METAL WORKS SERVING TEXTILE MILLS

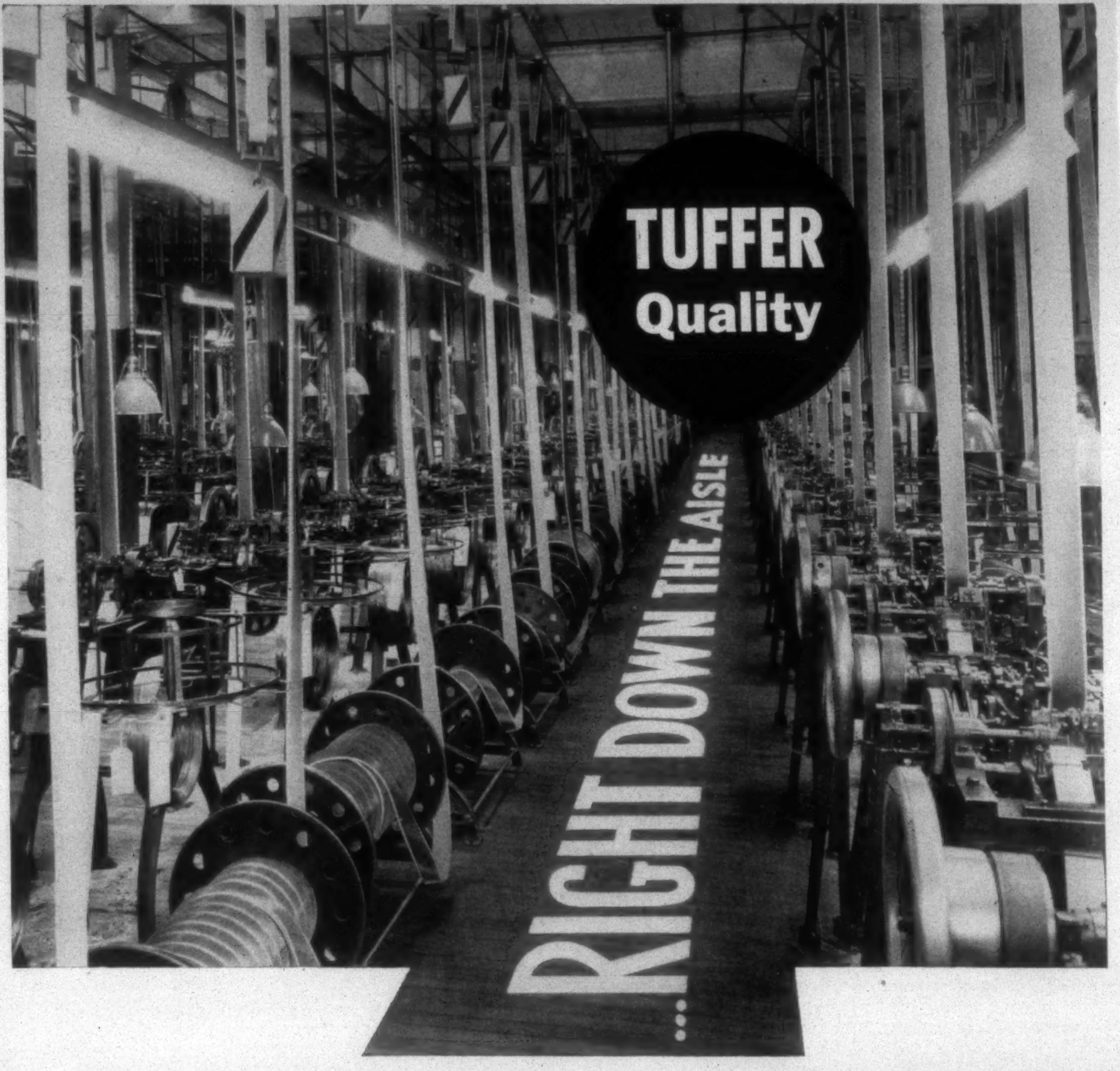
[illegible] 1-STOP check chart of textile chemicals

[illegible]

APPLICATION	NAME	COTTON	RAYON	WOOL	NYLON	SILK	LINEN	CHEMICAL NATURE
ANTI-SLIP	**WEAVE-LOK***		X		X			water-soluble processed natural resin
ANTI-SLIP	**FORMASET* HG**		X	X	X			inorganic polymer semi-durable
COATING								
NON VOLATILE	**PLASTISOL**	TEXTILES, PAPER						vinyl resin dispersions
VOLATILE	**ORGANOSOL**	TEXTILES, PAPER						vinyl resin dispersions
COLOR FIXATIVE	**WARCOFIX***	X	X	X	X	X	X	quarternaryammonium compound
COLORS, DISPERSED	**SUNTONE***	VINYL						pigments dispersed in resinous and chemical plasticizers
COLORS, PAD DYEING	**SUNTONE***	X	X	X	X	X	X	dispersed pigments and resinous binders
COLORS, PRINTING	**SUNTONE***	X	X	X	X	X	X	dispersed pigments and resinous binders
COLORS, PRINTING	**SUNTONE***	PLASTICS						dispersed pigments and resinous binders
FINISHES								
BODYING AGENTS	**SETOLE* AF**	X						aqueous dispersions of thermo-setting resins
CRUSH RESISTANT	**FORMASET* SN**		X					methylolurea type thermo-setting resin
DULLER	**ANTILUSTEROLE***		X		X			aqueous dispersion of inorganic pigments
FIRE RETARDANT	**WARCONYL* A**	X	X					blend of inorganic salts
GLAZING (DURABLE)	**FORMASET* 10-D**	X						dimethylurea-ether polymer
GLAZING (DURABLE)	**FORMASET* SN**		X					methylolurea type thermo-setting resin
MILDEW PROOFING	**KUPRATE***	X	X	X	X	X	X	solubilized copper 8 quinolinolate
MILDEW PROOFING	**G-4 EMULSION-20**	X	X	X	X	X	X	emulsion containing 20% G-4. Compatible with emulsion-type water repellents.
RIBBON FINISH	**SETOLE* D EXTRA**		X					water-soluble alkyd resin
SEWABILITY FINISH	**WARCO* A 221**	X						non-ionic emulsion
SHRINK RESISTANT	**FORMASET* SR**	X	X					ketone aldehyde type thermo-setting resin
SHRINK RESISTANT	**FORMASET* SN**		X					methylolurea type thermo-setting resin
SHRINK RESISTANT	**FORMASET* 10-D**		X					partially polymerized urea-formaldehyde type resin
SHRINK RESISTANT	**FORMASET* C**	X	X	X	X		X	controlled formalizer of fibers—highly wash resistant
SOFTENERS								
ANIONIC	**APPRETOLE***	X	X				X	alkyl amide dispersion
CATIONIC	**APPRAMINE***	X	X		X		X	substituted fatty amide
HEAVY-BODIED	**TORRIDEX***	X	X					sulfonated tallow
OXIDATION RESISTANT	**WARCOLENE* 171**	X	X				X	sulfated fatty acid ester
WATER REPELLENT DURABLE	**NORANE* R**	X	X					chloromethylated quaternary ammonium compound
WATER REPELLENT DURABLE	**NORANE* W**			X	X			wax emulsion plus metal salt complex
WATER REPELLENT RENEWABLE	**IMPREGNOLE***	X	X	X	X	X	X	wax emulsion with polyvolent salts
GAS FADING INHIBITOR	**WARCO* GFI**		X					high molecular weight amino compound
GAS FADING INHIBITOR	**WARCO* GND**		X					mixed organic amines (non-durable type)
KIER BOILING COMPOUNDS	**KIEROLE***	X	X				X	sulfonated fatty acids
KIER BOILING COMPOUNDS	**COLOROLE***	X	X				X	sulfonated fatty acids
LUBRICANT (YARN, FABRIC)	**WARCOLENE***	X						solubilized oil
LUBRICANT	**WARCO* A 221**	X						non-ionic emulsion
PENETRANTS—REGULAR	**WARCOSOL***	X						sodium alkylnapthalenesulfonate
PENETRANTS—NON-FOAMING	**WARCOSOL* NF**	X	X	X				blend of organic esters
PENETRANTS—MERCERIZING	**EUMERCIN***	X						cresylic and non-cresylic types
PIGMENT PRINT BINDERS	**SUNTONE* CLEARS**	X	X					emulsified resinous compounds
PIGMENT PRINT BINDERS	**FORMASET* 20**	X	X					partially polymerized urea-formaldehyde resin
TAR AND GREASE REMOVER	**LANOLE***	X	X	X	X			detergent solution in organic solvent
SYNTHETIC DETERGENT	**SULFANOLE* KB**	X	X	X	X	X	X	sodium alkylarylsulfonate
SYNTHETIC DETERGENT	**SULFANOLE* CP**	X	X	X	X	X	X	sulfated fatty amide
SYNTHETIC DETERGENT	**SULFANOLE* S GEL Conc.**	X	X	X	X	X	X	sulfonated fatty amide
SYNTHETIC DETERGENT	**SULFANOLE* AN**	X	X	X	X	X	X	fatty acid amine condensate
WETTING AND REWETTING	**WARCOSAN* B Conc.**	X	X					sodium alkyl ester sulfate
WOOL SCOURING	**LANOLE* B**		X	X				stabilized organic solvent soap compound

*Trade Mark Reg.

WARWICK
CHEMICAL
COMPANY, DIVIS



Here you see our exclusive Tufferizing Process at work . . . turning out Tuffer Card Clothing with a degree of precision and uniformity heretofore unknown in the manufacture of card clothing.

These machines and the Tufferizing Process were developed in our own engineering department . . . where the search for better ways to make better card clothing is continuous.

Our hundreds of customers who reorder time after time are proof that Tuffer Card Clothing is a superior product. Try it next time.

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Ga. and Gastonia, N. C.

Branches: Philadelphia, Pa. and Blanco, Texas *Direct Representation in Canada* A-8

TUFFER
CARD CLOTHING

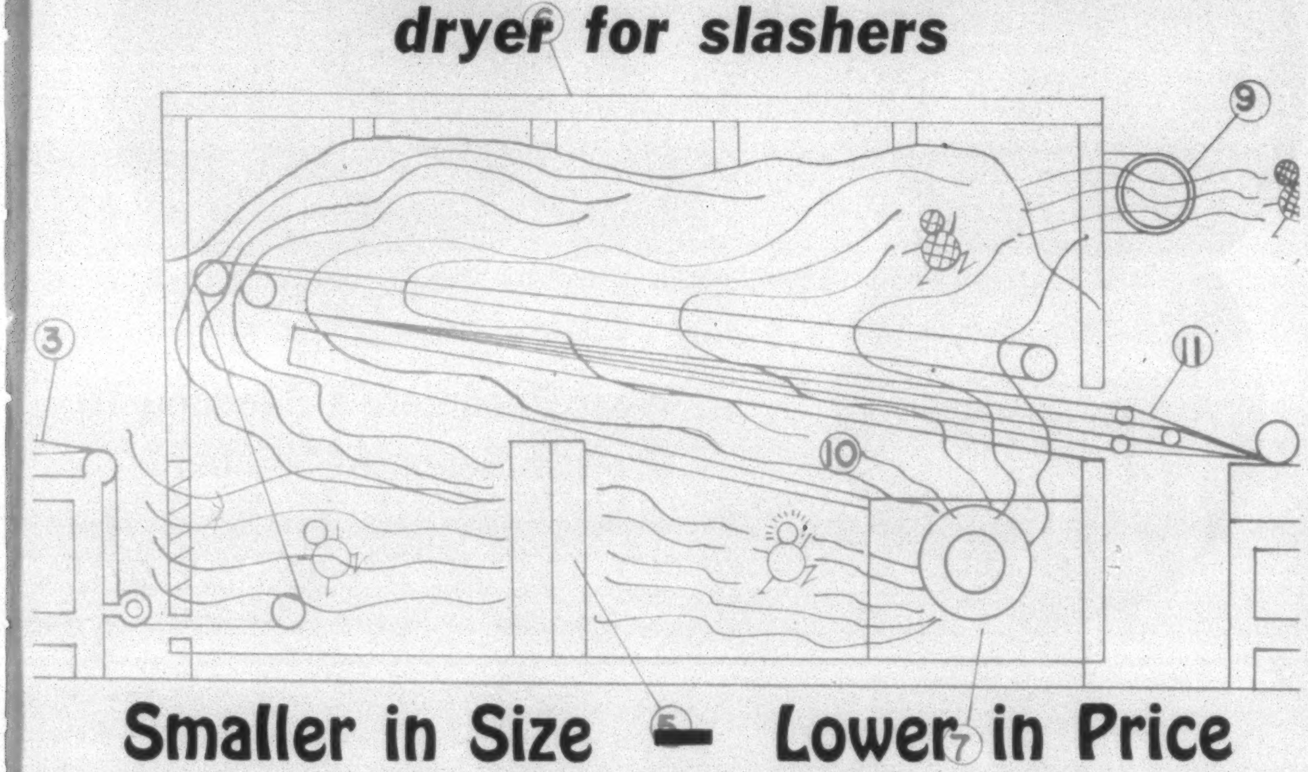
IMPROVES PRODUCTION ALL ALONG THE LINE

Announcing

The Model B

Uxbridge "Gentle-Air"

dryer for slashers



Smaller in Size — Lower in Price

- But capable of producing the same high quality warps at high speeds and lower costs as the Model A.
- The product of 8 years of research, the Model B is designed for cramped quarters where the Model A would not fit, and for mills which do not require the tremendous production of the Model A.
- Same high safety factor as with the Model A — No Explosion Hazards.
- All parts completely accessible for servicing.
- The same low cost, high quality operation.

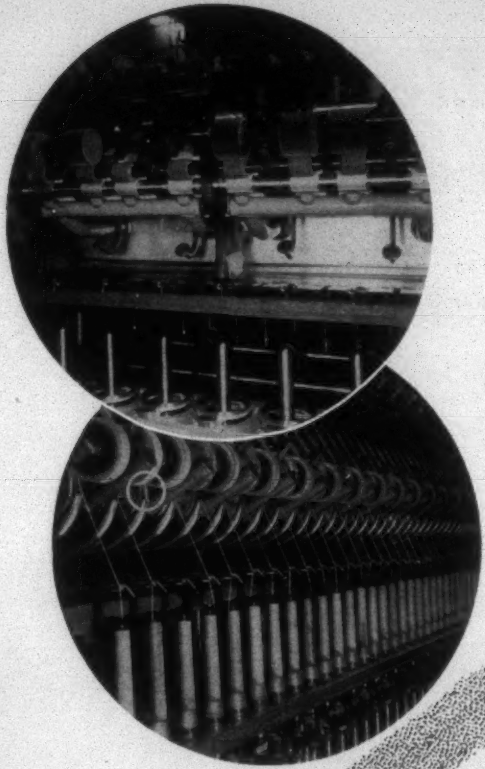
IRA L. GRIFFIN & SON, Southern Representative
Charlotte 1, North Carolina

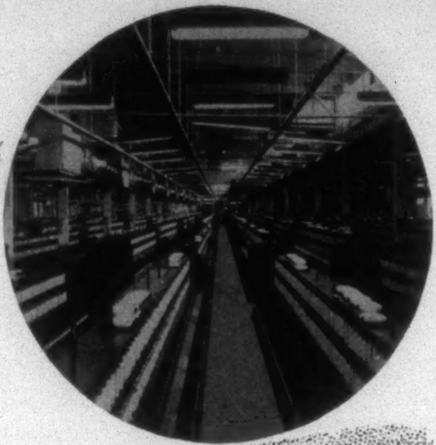
BACHMANN UXBRIDGE WORSTED CORP.
UXBRIDGE, MASSACHUSETTS

More warps
and **B**etter warps

Relieves Troublesome Spinning Bottlenecks

Saves Labor and Waste, and Reduces Seconds





What Pneumafil's Phenomenal Growth Means to Spinners

Starting from scratch in 1947, Pneumafil is now installed on almost one-third of America's spindles. (It has won the approval of every American spinning frame manufacturer and is included as standard equipment on some makes of frames.)

Some of the reasons for Pneumafil's rapid growth will be found in the following comments by progressive mill men:

"Pneumafil has solved a critical shortage of spinning labor and has enabled us to put on a third shift to produce badly needed war materials." "Pneumafil has saved enough in salvage white waste alone to pay for itself in less than a year." "With Pneumafil we can increase our frame speeds . . . and decrease our frame down-time materially."

The benefits of Pneumafil extend beyond the spinning process. By eliminating spinning doublings and greatly reducing slubs, gouts, and end-piecings, Pneumafil improves winding, warping, slashing, and weaving efficiency and reduces seconds in finished goods.

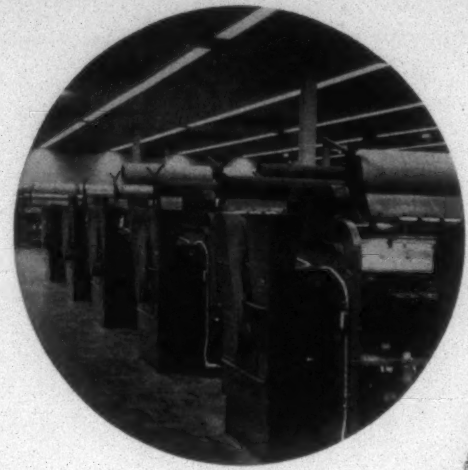
Pneumafil is your best investment for increased production, improved quality, and lower costs. Let us show you what Pneumafil will do for you.

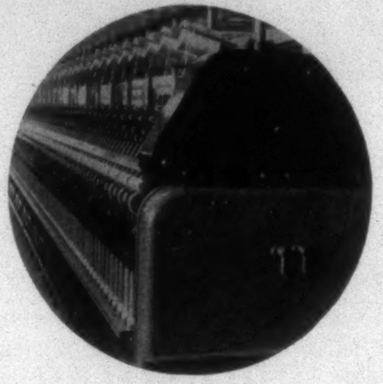
PNEUMAFIL

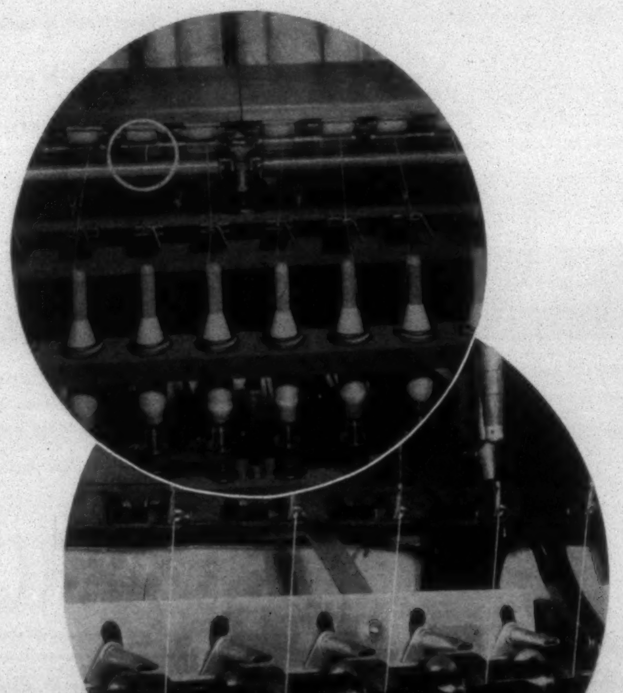
CORPORATION • 2516 Wilkinson Blvd., Charlotte, N. C.

Sales Offices: Boston—Philadelphia—Atlanta

PNEUMAFIL®







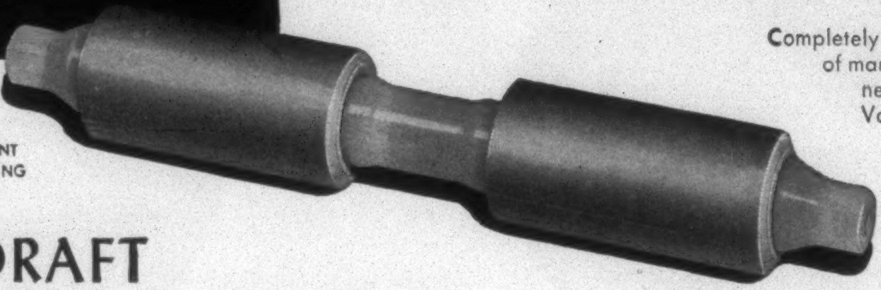
Cotton
Wool
Worsted
Rayon
Jute
Asbestos
Tow
Blends

South American and Continental Europe:
Luwa, S.A., Zurich, Switzerland

Canada:
Ian M. Haldane & Co.
P. O. Box 54
London, Canada

Mexico:
Compania De Industria Y.
Comercia, S.A.
Mexico, D. F., Mexico

Brand New



PATENT PENDING

Completely new method of manufacture, at new low price. Various styles.

CLEANDRAFT
Non-lubricating Top Rolls
for Back and Middle Lines*

- eliminate all lubricating effort.
- give much cleaner yarn, due to complete freedom from lubricant.
- reduce picking and cleaning.
- simple to install.

Low First Cost — Substantial Savings — INVESTIGATE

*Not for front line use.

CLEANDRAFT Non-lubricating Top Rolls are made for back and middle lines of all standard and long draft cotton Spinning Systems.

For complete information, write

INDUSTRIAL PLASTICS, INC.

21 VERNON STREET, WHITMAN, MASS.

Northern Sales:
Richard K. Butler
P. O. Box 428
Whitman, Mass.

Belgium:
Firme Paul Pflieger
158 Chaussee de Courtrai
Ghent, Belgium

Southern Sales:
Watson and Desmond
P. O. Box 1954
Charlotte, N. C.

France:
Thoma & Compagnie
21 Rue de la Chapelle
Paris 18e, France

Southern Service Office:
Box 1863
Spartanburg, S. C.

For European Service:
Victor Beecroft
54 Boroughgate
Otley, Yorkshire, England

HOUGHTO-SIZE

Softener – Binder – Plasticizer

IN ONE COMPOUND

STRONG ELASTIC WARPS!

All you do is add Houghto-Size to starch and water. With these three ingredients you produce a sizing agent that combines an all-in-one softener, binder and plasticizer. Warps are stronger — more elastic — with increased elongation. Weavability is improved substantially when one-piece Houghto-Size is used.

LOWER KETTLE COST!

Textile mill men are finding Houghto-Size a new high in money value. It is highly concentrated—contains over 90% active ingredients—goes further. Your kettle costs will drop surprisingly low when you specify Houghto-Size in your mill. Users are telling us so.

HIGH WEAVE-ROOM EFFICIENCY!

The special ingredients of concentrated Houghto-Size result in a warp with high breaking strength—and a good lay of fibers. You'll find loom efficiency is maintained at a high level when you use Houghto-Size.

Get Further Information and prices on Houghto-Size, including one new type supplied in *powdered* form . . . also the free authoritative 160-page handbook "Cotton Warp Sizing." Ask your Houghton Man when he calls or write to E. F. Houghton & Co., Philadelphia 33, Pa.

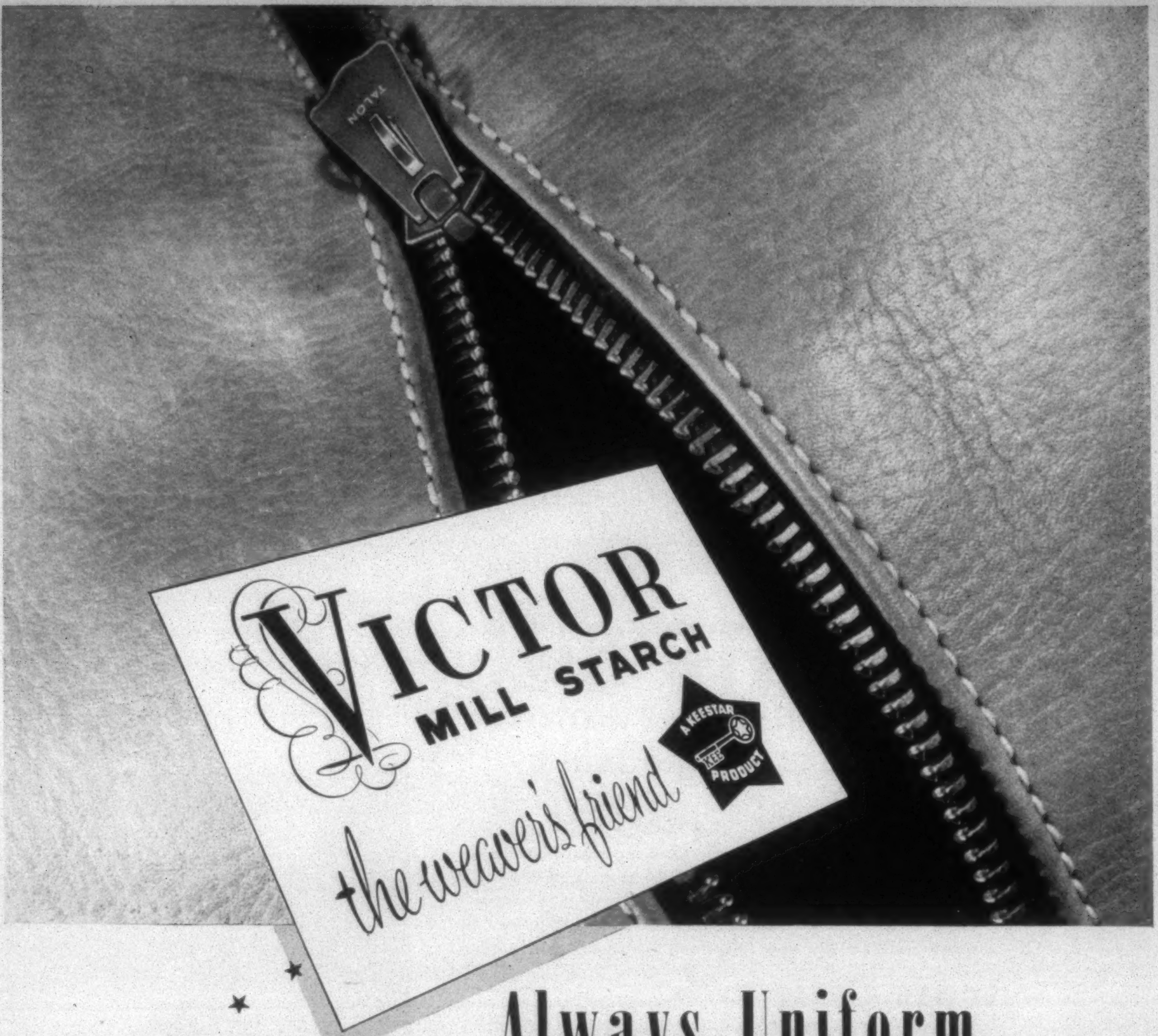
HOUGHTO-SIZE

. . . a product of

E. F. HOUGHTON & CO.

PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO

Ready to give you on-the-job service . . .



Always Uniform

There is often no open-and-shut answer to slashing problems. But one thing is basic . . . only unvarying quality such as you get in Victor Mill Starch can insure smooth performance day after day.

That's why Victor is known as "The Weaver's Friend" throughout the industry.

For better penetration, stronger warps, less shedding . . . rely on Victor Mill and the conscientious help of the Keever man who serves you.

TEXTILE SALES DIVISION
1200 WOODSIDE BUILDING
GREENVILLE, SOUTH CAROLINA
Charles C. Switzer, Manager

THE KEEVER STARCH CO. ★ GENERAL OFFICES ★ COLUMBUS 15, OHIO
Corn, wheat and other grain products for industry since 1898

WHY

AN EASY ROAD TO VAT FASTNESS

are water soluble esters of vat dyes. They produce the same brilliant shades and have the same fastness properties as the parent vat dyestuffs from which they are derived. On cotton and rayon they are more level dyeing and have better penetration than ordinary vats. Prints are smoother and clearer than normally applied vat dyestuffs. On wool Algosols have superior light and wash fastness without impairment to the quality of the wool. The method of applying Algosols is simple and inexpensive.

COTTON

Mercerized cotton piece goods of constructions otherwise difficult to color, have outstanding smoothness and penetration when dyed with Algosols. The shades of colored yarns used for cross-dyed effects in striped shirtings, etc. are not affected when over-dyed with Algosols. Mercerized and other types of cotton yarn dyed in package dyeing equipment are uniform, evenly colored from outside to center and free from crossovers.

RAYON

Rayon piece goods composed of filament, spun rayon or filament-spun rayon yarn when dyed by the continuous method or on the jig have solid, clear shades and excellent fastness. Rayon skeins are easily dyed on the 'Cascade' type machine. Algosols are excellently suited for dyeing packages and cakes in pressure dyeing equipment.

MIXED FIBERS

Suitings and dress goods of spun rayon and wool blends dyed in solid shades meet all fastness requirements. Special effects can be obtained on cotton-wool and rayon-wool mixtures by dyeing the wool and leaving the cellulosic fibers undyed or on viscose-acetate blends the viscose can be dyed fast color and the acetate tinted to yield two-tone effects.

WOOL

Suitings dyed with Algosols have excellent fastness properties even in light shades. Blankets and knitting yarns have outstanding fastness to light and washing. Algosols are recommended for dyeing slubbing and yarns in circulating machines. Shrink-proofed wool dyed with Algosols has excellent fastness to light and repeated washings. Wool can be dyed with Algosols without impairment to the quality of the wool.

PRINTING

In roller, screen and resist printing prints are smoother and colors clearer than the normally applied vat dyestuffs from which they are derived. Algosols have excellent light and wash fastness and do not crack. Blotch printed drapery fabrics have smooth grounds with excellent fastness to light and washing. Algosols are ideal companion colors for Rapidogens and Fast Color Salts.

COST

The simplicity of application, saving in time, lower cost of chemicals, superior dyeing and printing results offset any increase in dye cost over ordinary vats in light and medium shades. Not infrequently Algosols prove cheaper in light shades.

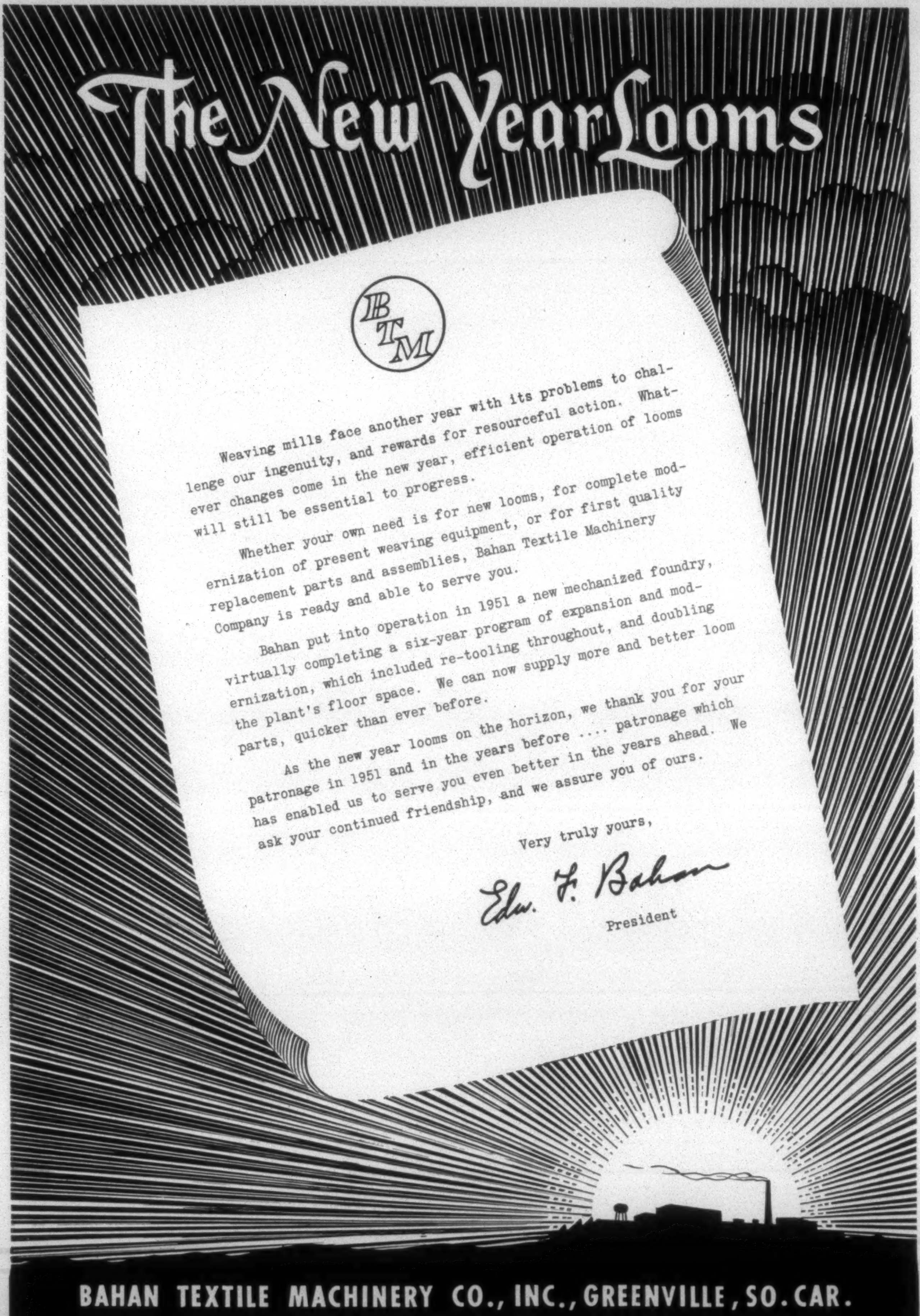
✓ **DELIVERIES** To insure prompt deliveries stocks are carried in warehouses strategically located throughout the country.

Technical information, product samples and the service of a highly trained technical staff are yours for the asking.

GENERAL DYESTUFF CORPORATION

435 HUDSON STREET • NEW YORK 14, NEW YORK

BOSTON • CHARLOTTE • CHICAGO • PHILADELPHIA • PORTLAND, ORE. • PROVIDENCE • SAN FRANCISCO



The New Year Looms

BTM

Weaving mills face another year with its problems to challenge our ingenuity, and rewards for resourceful action. Whatever changes come in the new year, efficient operation of looms will still be essential to progress.

Whether your own need is for new looms, for complete modernization of present weaving equipment, or for first quality replacement parts and assemblies, Bahan Textile Machinery Company is ready and able to serve you.

Bahan put into operation in 1951 a new mechanized foundry, virtually completing a six-year program of expansion and modernization, which included re-tooling throughout, and doubling the plant's floor space. We can now supply more and better loom parts, quicker than ever before.

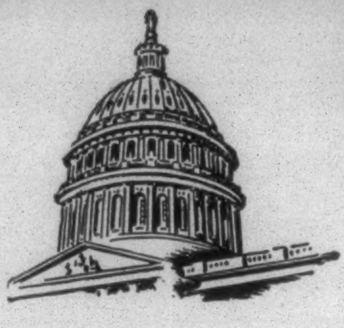
As the new year looms on the horizon, we thank you for your patronage in 1951 and in the years before .... patronage which has enabled us to serve you even better in the years ahead. We ask your continued friendship, and we assure you of ours.

Very truly yours,

Edw. F. Bahan

President

BAHAN TEXTILE MACHINERY CO., INC., GREENVILLE, SO. CAR.



WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

A miniature F.E.P.C. set up through executive order by Truman will reopen the battle over states' rights and powers in Congress. Truman's order creates a commission of 11 to "police" federal contracts and sub-contracts, and thus under rearmament, be given power to search for alleged discrimination in at least a fifth of the nation's economy. It has no enforcement powers of its own, but can seek enforcement through other federal contracting agencies. The members are not subject to confirmation by Congress.

Restrictive amendments to appropriation bills barring funds to the commission are certain to be offered in the House and Senate. Under Truman's order, various departments will pay the commission's expenses out of grants of their funds. This will clash sharply with the most jealous prerogative of Congress, which refused to grant funds to Truman's wartime F.E.P.C., and prohibited grants by other agencies.

The tax scandal moved over to the Department of Justice to produce the biggest of all Truman scandals, and is expected to bring early retirement of Attorney General McGrath. In the muck of the malodorous mess, McGrath's chances of being named to the Supreme Court have probably disappeared. Even Justice Clark, whom McGrath succeeded, is not escaping being drawn into the churning mess.

Disturbing reports from Trumancrat House members of growing grass roots resentment at home over the tax scandal is causing panic among Truman political strategists. These House members are urging a quick and thorough house cleaning and ouster, especially in relation to "fixes" in prosecutions of tax evaders by the Department of Justice.

McGrath is not deemed to have been wholly ignorant of the tax "fixes," although he has delegated most of his functions to assistants. Evidence in the hands of Chairman King of the House committee indicates the full story is far from revealed. If King is able to make as full inquiry as planned, it will be one of the most sickening scandals ever known.

King is driving straight to uncover whether an "inside clique," with easy access to "influence," has made trouble for, and shaken down, tax dodgers. Also whether, for a "fee," they have blocked prosecutions of tax evaders. Tax fixing for shady characters, racketeers, a few actors and some black marketeers, promises to bulk large in coming revelations.

Senator Williams (R., Del.), who first touched off the tax expose, will unload new and startling evidence of tax "fixes" in the new session of Congress. It will center on "fixes" for some of the country's best known racketeers and gamblers. According to Williams, Chicago Attorney Teitelbaum was not shooting wide of the target when he mentioned an "inside clique" high up selling tax settlements.

Prospect of a deficit of over $6 billion on June 30 will be the first worry of Congress when the session convenes. It exists because the last session voted colossal grants, throwing economy to the winds, and then failed to enact taxes to cover the spending, The estimated deficit on June 30, 1953, now runs from 18 to 24 billion dollars.

With huge deficits in the making, Congress still faces the fact that more taxes cannot be levied without possibly irreparable damage to the country's economy. High-bracket income taxes now put a confiscatory penalty on annual earning beyond a specified sum. If all personal income above $25,000 a year was confiscated, the Treasury would only gain about $700 million a year.

Treasury officials are casting an anxious eye on higher excise taxes as a means of increasing the federal take. They are looking at the new gasoline tax of 67 cents, out of 82 cents a gallon, and tobacco taxes up to $1 a pound, in France. The Treasury knows a single year's deficit of possibly $25 billion is ahead within three years at the present rate of Truman spending.

With everything that's taxable already touched, Treasury officials have no alternative but to seek rate hikes. It's deemed certain the Ways and Means Committee will bring in a new bill next Spring seeking revenue of five to seven billion dollars. However, committee members still talk evasively of the bottom of the barrel having been scraped.

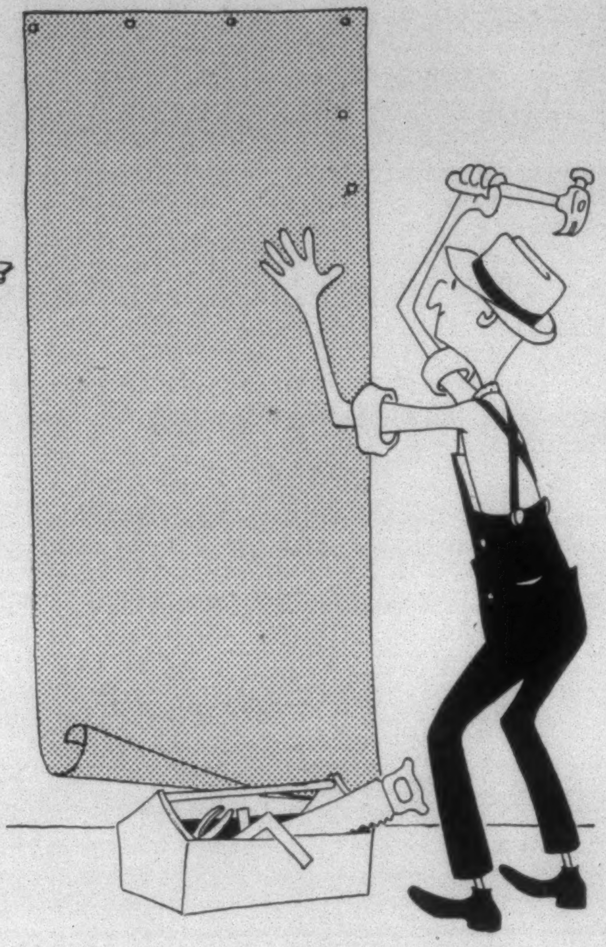
Truman has never concerned himself with whether his tax proposals would raise money without discouraging production, lessening inflation controls or would evenly distribute the defense load. He merely wanted money. He has never pointed to taxes that would do the least damage to industry and the economy.

The spending budget for the next fiscal year will call for about $85 billion. The budget in prospect for the year starting in mid-1953 will call for about $90 billion, as indicated now. This volume of spending is expected to set off a new tidal wave of inflation. The burden of inflation is already greater than the burden of taxes.

No one knows how much more taxes are needed for budget balancing, because not even Truman knows how much will be his spending programs. No one knows how much reduction in spending will follow a Korean truce, or how much change will come in shifts in prices. Even a partial cut in foreign aid would go far in reducing the load.

Tax yields in 1952 are uncertain, and no one knows whether present rates will produce more or less revenue. This Fall the

BANKERS TO BUILDERS



Everybody

USES PAPER

Wrapping money or wrapping a house—you need paper! To meet requirements, call the Dillard division near you. You will find it has a complete stock of paper and allied products. Each Dillard division also has men who are specialists in all problems of paper and packaging—and they are ready to help you.

DILLARD HAS THE RIGHT PAPER
FOR EVERY USE!

Dillard **PAPER COMPANY**

GREENSBORO • CHARLOTTE • GREENVILLE • COLUMBIA • AUGUSTA
ROANOKE • BRISTOL • WILMINGTON • MACON • KNOXVILLE

1926 Twenty-five Years of Service and Experience 1951

Treasury increased its estimates of last January by $3.4 billion, but the Joint Taxation Committee pushed the estimate up by $5.8 billion. Truman aides have not spoken one word relating to economy in spending.

Truman came in for stinging and lashing criticism for taking a prolonged vacation at Key West while the most noisesome scandals in the country's history were breaking, and fiscal problems were mounting skyward. Truman's political strategists sought to laugh off the effect of the scandals by saying those of the Harding regime did not prevent Coolidge from being elected.

Limits on wage boosts set by W.S.B. will be disregarded by C.I.O., in going after seventh-round pay hikes. Excuse will be again that living costs have outrun the limits set by W.S.B. The C.I.O. feels it can command the heavy hand of government in belting employers who resist, and need not be coy in making demands.

C.I.O. expects to ask the next session of Congress to make some changes in the Taft-Hartley Law, but they will not be important. What is important is that C.I.O., losing hope of repeal, is shifting to a "piecemeal" attack, with real devitalizing changes to be pushed after sentiment in Congress has been tested by minor changes.

Wrath of C.I.O. over failure to unionize expanding industry in the South is turning to an effort to gain more control over W.S.B. With this gain, it hopes to force union acceptance and practices in every industry in the South in war work or contracts. The next move will be to bring about union acceptance and wage changes by areas and districts.

Union leaders are soft-pedaling on demands for more and larger pension plans and fringe benefits. They expect to succeed in a new round of wages next year, and are holding pensions and fringe claims in reserve for a year when wages are leveling off. Manpower needs today, they believe, give them an upper hand in wage demands.

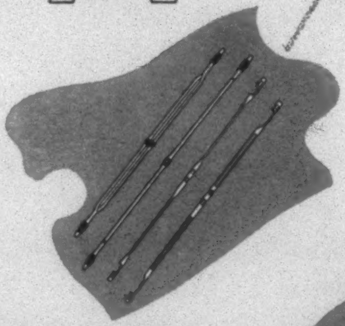
The Senate Security Sub-committee is trailing more than a score of top-level Moscow Communists who have moved at will in the U. S. under U. N. diplomatic immunity. An early report will show a complete top-level Moscow staff in the U. S., moving with utmost freedom under U. N. immunity, and keeping close contact with Communist cells and dominated unions.

Senate inquiry into Ohio's 1950 election was focused chiefly on Taft rather than on his union-supported opponent. No check was made of the big spending by the unions. Taft's judgment and interpretation of law was often impugned by members of the committee and its attorneys.

Quite evidently, one intent of the inquiry was to uncover Taft's strategy in 1952. Another was to dig up, here and there, a detail that might be used for mud-slinging and "give 'em hell" speeches.

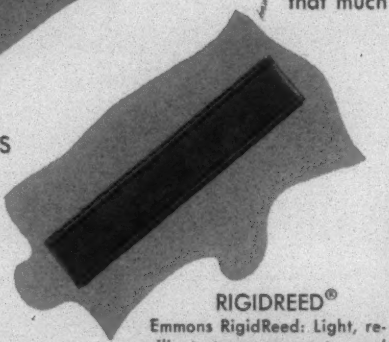
EVERY PIECE COUNTS
in Your Weaving Operation

In your production picture, every part counts. None can be spared, however minor it seems by itself. We've pioneered improvements in all details of loom harness equipment year by year since 1867. And when every Emmons part does its job better, lasts longer, gives more value for your investment — your whole operation moves into the profit column that much sooner!



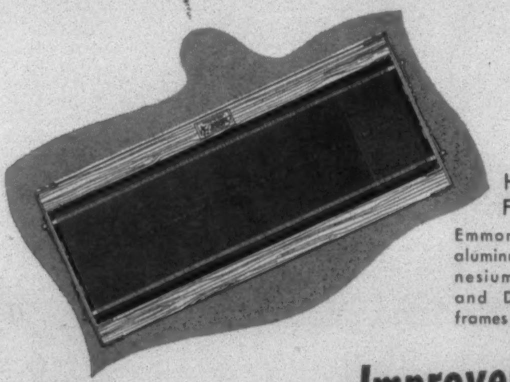
DRAWING-IN HEDDLES

Emmons cut-out and slotted drawing-in heddles for use with Barber - Coleman drawing-in machines. Standard heddles — stainless, cadmium or nickel finish.



RIGIDREED®

Emmons RigidReed: Light, resilient, strong, compact — and long - lasting. Also standard pitchband and all-metal reeds in carbon and stainless steel.



HEDDLE FRAMES

Emmons wooden, aluminum and magnesium Standard and Drawing - In frames — all types.

Improvements

EMMONS, *Leaders in Loom Harness Equipment Since 1867*

Ask your EMMONS "E" MAN what's new!

EMMONS SLASHER AND STRIKING COMBS

*RUN-RITE PLASTIC SHEAVES AND TAPE TENSION IDLERS

(*Distributed by EMMONS in New England, Canada & Export; Manufactured by National Plastics, Inc.)

You'll Find EMMONS "E" MEN At:

NEW JERSEY
HENDRIK VAN BREDERODE
311 Godwin Ave., Midland Park
Phone Ridgewood 6-0760
Covering N. Y., N. J. & Penn.

CHICAGO, ILL.
ALBERT R. BREEN
80 E. Jackson Blvd.
Phone Harrison 7140

CANADA
IAN M. HALDANE CO.
P. O. Box 54, London, Ontario

LOS ANGELES, CAL.
E. G. PAULES
1762 West Vernon Ave.
Phone AX 3-6265—Covering the
West Coast & British Columbia

CHARLOTTE, N. C.
Branch Plant
George Field, Mgr.
P. O. Box 2036, Phone 3-7503

ATLANTA, GA.
ARTHUR HARRIS
P. O. Box 1982
Phone Main 2643

GREENSBORO, N. C.
R. F. COE, Box 221
Covering North Carolina,
Viriginia & Tennessee

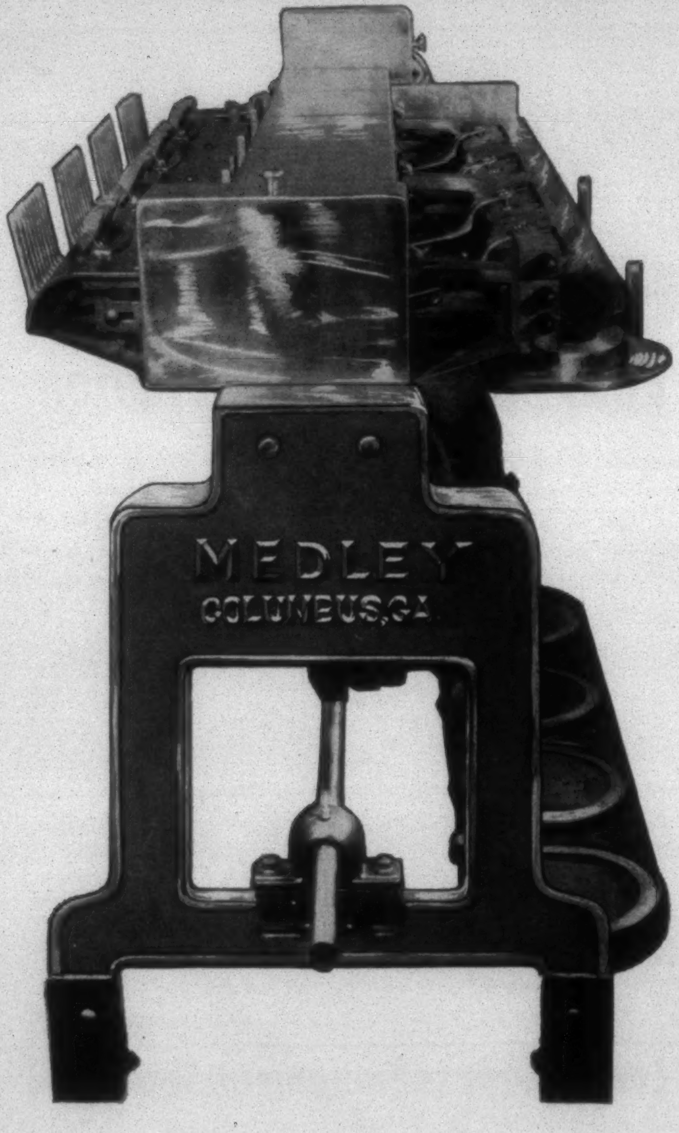
GREENVILLE, S. C.
RALPH GOSSETT & COMPANY
8 South Church St.
Phone 3-6233

SAN ANTONIO, TEX.
W. H. GIBSON
1743 McKinley Ave.
Phone L2-9451

EMMONS WEAVE ROOM EQUIPMENT

Main Office and Plant: EMMONS LOOM HARNESS CO., *Lawrence, Mass.*

HOW IS YOUR QUALITY?



During business recessions buyers are inclined to be particular. In fact, they sometimes demand near perfection. Is your equipment in shape to stand the test?

Why not let MEDLEY check to see if your yarn is getting the proper preparation in drawing.

Remember that — ONCE NON-UNIFORMITY IS PUT INTO SLIVER, IT IS THERE TO INCREASE WITH PROCESSING.

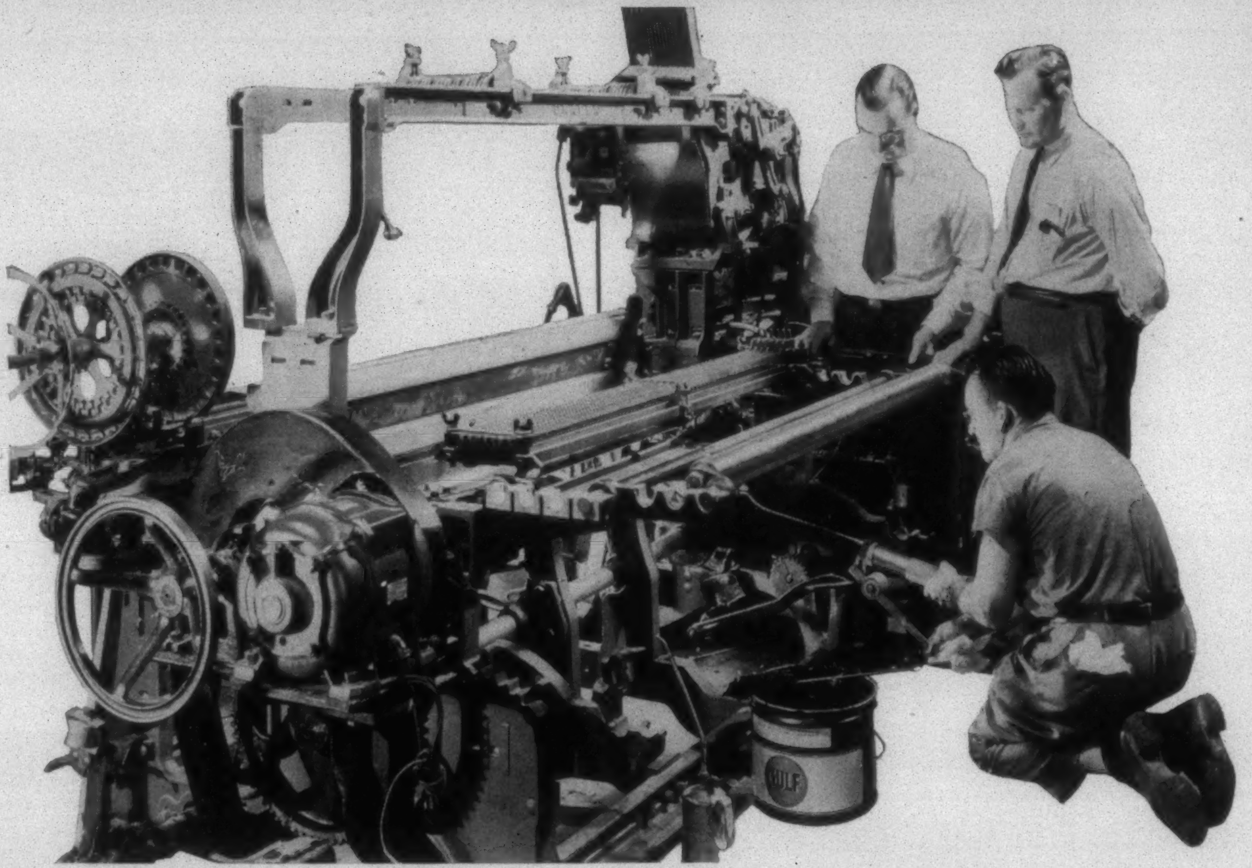
Let our representative check your drawing.

MEDLEY MANUFACTURING COMPANY, INC.

HOME OFFICE

400 THIRTY-SECOND STREET •-• COLUMBUS, GEORGIA

a timely new approach
to improved production and lower maintenance costs
...Gulf Periodic Consultation Service



Here's effective help for every textile mill—Gulf Periodic Consultation Service. From this single source you can get practical help on any problem that involves a petroleum product—lubricants, fuels, solvents, rust preventives, special process oils, waxes.

Gulf Periodic Consultation Service makes available to you the regular counsel of one or more trained engineers who have years of experience with every type of textile process and equipment, and technologists who are skilled in every phase of petroleum science.

This knowledge and experience can be applied profitably to your operating and maintenance problems. Send for your free copy of the booklet which details *how* Gulf Periodic Consultation Service can help you reduce costs and improve production.

FIFTY YEARS OF SERVICE
1901 GULF 1951
PETROLEUM AND ITS PRODUCTS

Gulf Oil Corporation · Gulf Refining Company T3
719 Gulf Building, Pittsburgh 30, Pa.

Please send me, without obligation, a copy of the booklet "Gulf Periodic Consultation Service."

Name..........

Company..........

Title..........

Address..........

Which roll covers

A stop watch gives the answer

Here's the scientific reason why

The main point in measuring the lap resistance of a roll cover is this: Does it consistently let a broken end run free long enough to go down onto the scavenger roll?

Textile research men at Armstrong's have worked out a way to answer this quickly. It's a simple test that shows in minutes what it would normally take months to prove in the mill. Test results stand up in practice, too. Cots which work well on this test, perform equally well in the mill.

Here's how this test works. First, the test cot is put on a frame section from which scavenger roll and clearer board have been removed. The frame is then speeded up to many times normal.

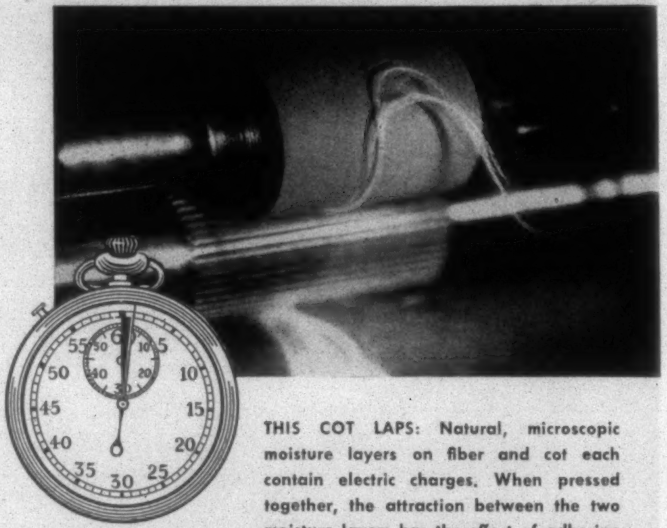
Next, the technician breaks an end and checks with his stop watch how long the cover lets the end run free. The longer the end runs free, clearly, the better chance it has in the mill of dropping to the scavenger roll, and the better the lap resistance of the cot.

In thousands of such tests against the stop watch, Armstrong's Accotex Covers consistently prove that they have more lap resistance than any other cover tested.

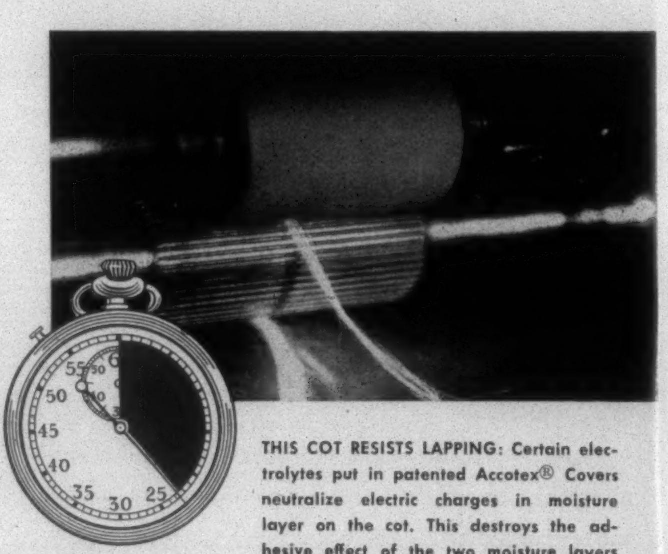
Why? Because Accotex Covers are made with an exclusive formula. Each Accotex Cover contains "electrolytes" . . . special ingredients that eliminate one of the principle causes of lapping . . . the attraction between fiber and roll cover.

Armstrong makes a complete line of these patented lap-resistant covers. Whether you spin cotton, wool, synthetics, or blends, your Armstrong representative can suggest the right Accotex Cover for your work.

Call him today or write Armstrong Cork Company, Textile Products Department, 8212 Arch Street, Lancaster, Pennsylvania. Accotex Cots are available for export.



THIS COT LAPS: Natural, microscopic moisture layers on fiber and cot each contain electric charges. When pressed together, the attraction between the two moisture layers has the effect of adhering fibers to cot, causing ends to lap up.



THIS COT RESISTS LAPPING: Certain electrolytes put in patented Accotex® Covers neutralize electric charges in moisture layer on the cot. This destroys the adhesive effect of the two moisture layers and lets broken ends run free.

ARMSTRONG'S ACCOTEX COTS

resist lapping best?

WHEN AN END BREAKS, will the cover let the yarn run free long enough for it to go down on the scavenger roll? Tests in our laboratories, backed by mill experience, show that many covers will not. They lap up within a split second after an end breaks, before the yarn can get to the scavenger roll. Armstrong's Accotex Cots consistently let broken yarn ends run longer than other covers tested.

textile bulletin

PUBLISHED MONTHLY BY

CLARK PUBLISHING COMPANY

P. O. Box 1225 . CHARLOTTE 1, N. C. . Telephone 3-3173
— Offices and Plant: 218 West Morehead Street, Charlotte 2 —

David Clark	*President and Editor*
Junius M. Smith	*Vice-President and Business Manager*
James T. McAden, Jr.	*Editorial Director*
Ervin Dickson	*Associate Editor*
Andrew Hewitt	*Assistant Editor*
F. R. Carey (P. O. Box 133—Providence, R. I.—Telephone Williams 3957)	*Vice-President and Eastern Manager*
R. J. Shinn	*Field Advertising Representative*
Ben C. Thomas	*Field Circulation Representative*

One year payable in advance	$1.50
Three years payable in advance	3.00
Canada (one year)	3.00
Other countries in Postal Union (one year)	5.00
Single copies	.15

Why Mills Leave New England

A recent issue of *America's Textile Reporter* of Boston, Mass., was devoted to a large extent to a very full and very frank discussion of the continual movement of textile mills from New England to the South.

We derive no pleasure from the misfortunes of one section of this country even though it means an increase in industries and employment in the section in which we happen to live.

Every few years for many years, and at more frequent intervals in recent years, there have been studies made in New England by commissions and committees relative to the movement of cotton mills from that section to the South and recently the beginning of the movement of woolen and worsted mills have caused new studies.

Always the studies have concluded with the statement that there were no real reasons other than lower Southern wages and that no more mills would move. One report, about five years ago, said that mills would soon be moving back from the South to New England.

In spite of the optimistic reports the movement of cotton mills has continued and when the American Woolen Co. admitted that it would move machinery from Massachusetts to buildings it had acquired at Raleigh, N. C., a graphic realization struck New England.

America's Textile Reporter has doubtless rendered a real service to New England by presenting a frank discussion of the problem.

The following are some extracts from their statements:

> The textile industry will go where goods can be made the cheapest and goods can be made cheaper in other sections of the country today than they can in New England.
>
> That in a nutshell is the crux of the whole argument of whether New England is going to lose its textile industry or not. It makes no difference whether this survey or that survey concludes that textiles in New England can survive "if" their recommendations are carried out; the point is that mill management has waited until the zero hour for some kind of action to be taken on the problems that threaten the industry's existence in New England and none has been forthcoming of any consequence.
>
> It seems to us that there is absolutely no doubt of a continuing greatly multiplied movement of woolen and worsted mills out of the old high-cost industrial sections in the newer lower-cost textile manufacturing opportunities in the South.

Speaking of the movement of the machinery of one of the mills of the American Woolen Co. from Lawrence, Mass., to Raleigh, N. C., they say:

> President White's boss is a stockholding body of 25,000 private investors. They don't care anything about Lawrence. They don't care anything about the workers in Lawrence. All they care about are earnings and dividends. To those 25,000 stockholders as to any sensible men, it doesn't make any difference where the cloth is made, or whether it is their Northern operatives or their Southern operatives who get the wages, no matter where the mills are located, people will be employed, if the Lawrence people are not as good workers as the Southern operatives, if the Southern operatives will tend more machinery than the Lawrence mill workers, we want those mills located in the South because we want earnings, we want safety for our money.
>
> The fact that no new mills have been built in New England in recent years proves that capital does not consider the possible return in New England adequate to justify the risks involved. The fact that many new mills are being built with new capital in the South proves that the possible return to be expected from the investment of capital in that area does justify the risk.

These are but a few of the many frank statements made in the issue of *America's Textile Reporter*.

For many years both textile manufacturers and the public of New England were content to charge that movement of mills to the South was due almost entirely to prospect for lower wages.

They made that statement and as it satisfied them they refused to look any further.

As a matter of fact, we doubt that any textile mill ever moved from New England to the South in order to secure employees at a lower wage scale.

There has never been enough difference in wage scales to justify the movement of a mill from New England to the South and it was unfortunate for the people of New England that they decided upon that tune and played it a thousand times without ever realizing that there could be other tunes.

The man who moved his mill knew that in the South, because of better workers, he could produce more pounds of goods for each dollar of wages than in New England and that was the deciding factor rather than a slight difference in the wage scales.

In most cases there was also the desire to get away from old and antiquated machinery.

There never was a finer group of manufacturers than the New England cotton manufacturers of 50 years ago but they passed away and left the stock of their mills in the hands of widows and the management in the hands of sons who had attended Ivy League colleges.

The widows and the sons needed dividends in order to live upon the scale to which they had become accustomed and they refused to sacrifice dividends in order to purchase modern machinery and revamp the plants.

The coming of labor unions and the frequent interruption of operations, by strikes, made the mills poor financial risks and banks became reluctant to make loans for new machinery.

In 1921 there were over 21,000,000 cotton spindles in

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N. Y.

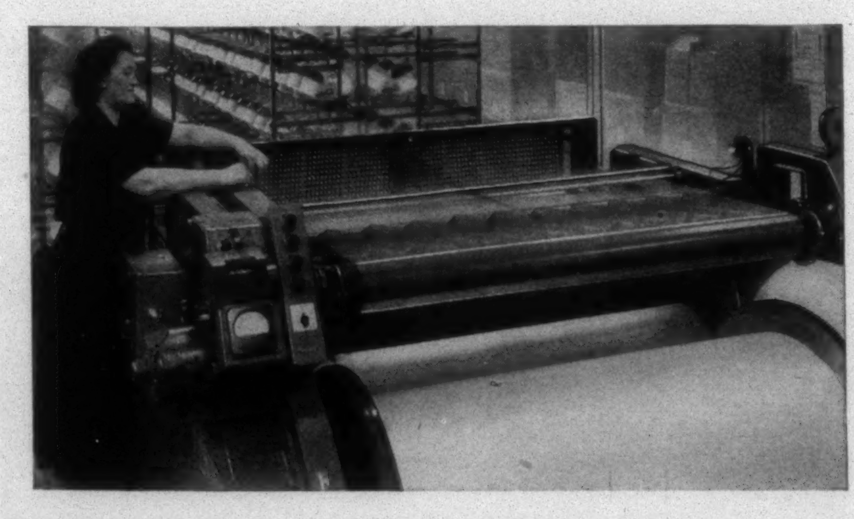
December, 1951

Section Beams Wound Experimentally in 4½ hours

New Facilities of Avisco Textile Research Department producing interesting results

Avisco's Textile Research Department is now turning out section beams from cakes in as short a time as four and a half hours in experimental work with a new type beamer. Each beam carries 766 ends of 100 denier rayon 53,000 yards long, and beams have been wound with as low as six breaks each.

In these Avisco experiments, as a result of improvements in the formation of the cakes, coning is bypassed, the beamer being fed directly from the cakes. Time and motion studies have also enabled Avisco to reduce to thirty-five minutes the time required for three experienced girls to tie the 766 knots necessary each time a new beam is started.



Electronic control keeps the yarns moving at a constant speed and provides for an automatic stop, without skidding, whenever a break occurs. As a result of these and other refinements the speed at which it is being run by Avisco is approaching 450 yards per minute. Among these other refinements are a traverse, quick-doffing arrangement, pre-setting counter, and an instant speed change.

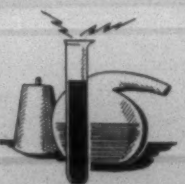
This machine is one of a number of new textile machines installed recently by Avisco's Textile Research Department. The department has long engaged in a continuing study of fibers, yarns, fabrics, finishes, and equipment, for the service of the textile industry.

RAYON 20 YEARS AGO

New York, December, 1931—An improved earning outlook for the rayon industry is predicted in 1932.

Paris, December, 1931—Cocktail pajamas of rayon are being emphasized by designers, here.

Berlin, December, 1931—A process has been proposed for manufacturing rayon by using static electricity in the viscose solution.



MAKE USE OF *Avisco*® 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
4 FABRIC FINISHING

AMERICAN VISCOSE CORPORATION

World's largest producer of rayon

Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

New England but today there are only about 4,000,000 and now the woolen and worsted industry has begun to move South.

Dividend demanding widows and sons preventing modernization, labor unions constantly disrupting operations, excessive taxation and too many restrictions by legislatures have wrecked the textile industry of New England.

The erroneous and blind assumption that mills were moving South in order to pay lower wages has kept New England from realizing the real reasons why it has been losing a great textile industry and now *America's Textile Reporter,* which has long fought the battles of the textile industry of New England, is telling them that it is too late to save more than a small remnant of the great textile industry which they once had.

Eugene Gwaltney

The death of Eugene C. Gwaltney, vice-president and research director of the Saco-Lowell Shops, removed from the textile industry of America one of its most brilliant minds.

Gene Gwaltney from the time he entered the textile industry, which we believe was at Lancaster, S. C., was never satisfied with the operation of textile machinery and was constantly studying possible changes and improvements.

His crowning achievement was the radically new and sensational spinning frame which has been developed by the Saco-Lowell Shops and which will be announced at an early date.

It will be known as the Gwaltney spinning frame in honor of the man who spent a number of years perfecting it and who would have taken much pride in its first display.

Eugene Gwaltney's father was a Baptist minister, first at Hillsboro, N. C., and later at Hickory, N. C., and our friendship for him was heightened by the fact that Dr. Gwaltney performed the ceremony when the father and mother of this editor were married.

Eugene Gwaltney's brilliant mind was filled with ideas for improvements in textile machines and, while he had reached a mature age, the industry suffered a distinct loss when he passed away.

How Long Can Business Live?

How long can the corporations of this country be virile and strong, having to pay the present taxes—66 per cent?

It's a good question, and it was asked by a good man, Sen. Harry F. Byrd of Virginia. The answer was given by a man holding a key position in the Truman government: "Not over two years."

The government official was Mr. Charles E. Wilson, defense mobilizer. As head of General Electric, he knows whereof he speaks. He was picked to direct the rearming of America because of his knowledge. Thus he qualifies as an expert both for government and for business.

"Oh well," says the ordinary citizen, "why should I fret over what happens to Big Business?"

Just this, friends: When Big Business no longer has the money to pay taxes, the taxes will be sweated out of our hides. If Big Business collapses, our armament program will collapse with it.

—Talburt for Scripps-Howard

'HAS ANYBODY GOT A FIG LEAF?'

If Mr. Wilson is right, two more years at the present rate of taxation will sap the strength and virility of our big tax producers and cripple our sinews of war. Two more years will carry us almost to 1954. There still is time to save ourselves. A national election is scheduled for 1952.—*Charleston* (S. C.) *News & Courier,* Dec. 8.

Jealous College Professors

College football is not a matter of vital importance but it is a clean and wholesome sport and it does give pleasure to many millions of Americans who witness the games in person or over television or hear the broadcasts over radio.

Each year certain college teams win all or most of their games and there comes the question of which of the winning teams are superior. As the result of the difference of opinion there are bowl games on New Year's Day and fully 25,000,000 people are now looking ahead to New Year's Day with much pleasure to hearing the broadcasts or seeing the games in person or over television.

Ahe American idea is to permit every citizen, every organization and every team to attain the heights of success and become a standout.

The Russian system is to keep every citizen and every organization and every team on the same level and to permit none to rise above the others.

On Dec. 14th the presidents and faculty representatives of colleges in the Southern Conference met at Richmond, Va., and voted for the Russian system, that is, not to permit the top teams to contest with each other in bowl games to decide which is really the best.

The college presidents and the professors gave no reasons why bowl games should not be permitted so we will offer an explanation for them.

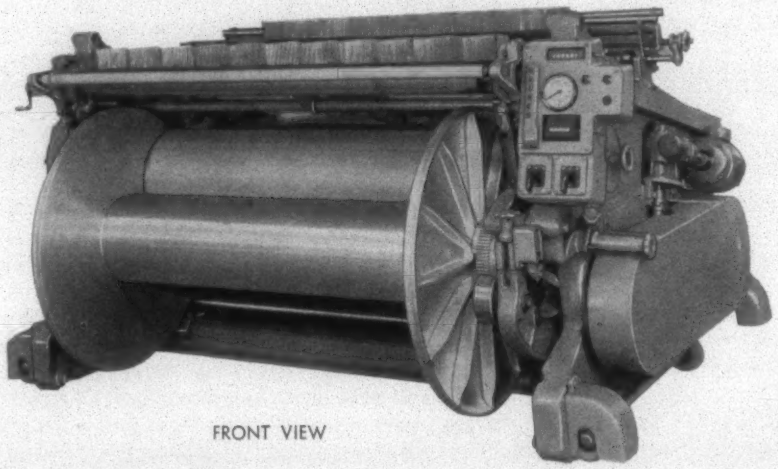
Many presidents and professors do excellent jobs but their goods works are seldom given any recognition.

They see the football coaches and the football players

for dependable, trouble-free, *Heavy Duty Service*

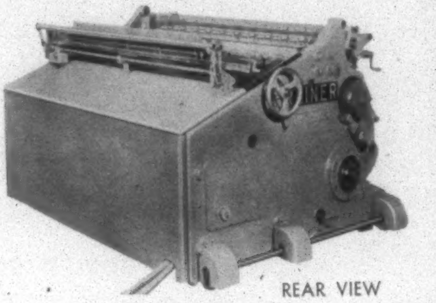
REINER BEAMING MACHINE

(MODEL HD)



FRONT VIEW

Designed in cooperation with the trade, it supplements the well-known and widely used line of high speed Reiner Warpers. Model HD is the result of our experience in building preparatory equipment, and of our continuous and close contacts with progressive mill men throughout the industry. A RICHLY ILLUSTRATED CATALOG IS YOURS FOR THE ASKING.



REAR VIEW

SOME FEATURES OF THE MODEL HD

Spindle drive—Flange diameters up to 36"—Length of beam to customers' specifications—Suitable for dye beams—Speed range from 100 to 900 yards per minute through rheostat control. Independent adjustment for inching and starting speed, provision for foot-operated inching switch—Rheostat geared to presser roller to maintain pre-set constant yarn speed—Traverse motion—Electric beam doffing device. Stop motions—Lateral motions to move unit easily from creel to creel—Comb oscillating movement—Double acting brakes on all rotating units for quick synchronized stop—Centralized control panel — Typical Reiner type heavy frame constructions—Lower overall working height of machine—Comb arrangement permits easy access for operator—7½ direct current motor with generator.

THE REINER LINE

Tricot Machines (2- and 3-bar, 84" and 168") —Simplex (Double Knit) Machines—Kayloom Machines—Raschel Machines—Magazine Creels—Single Type Creels—Truck Creels—Four Section Full-Fashioned Hosiery Machines (up to 66 Gauge)—Schiffli Embroidery Machines (10 and 15 yards) with Automats or Pantographs—Bobbin Winding Machines (for Stitching or Quilting)—Ready Spare Part Service for all Reiner Machines.

Send today for Reiner Catalogs. Get a more complete picture of Reiner profit building equipment from these richly illustrated and informative catalogs. Write for your copies today.

FOUNDED IN 1903

ROBERT REINER INC.

550-564 GREGORY AVENUE
WEEHAWKEN, NEW JERSEY

10 MINUTES FROM TIMES SQUARE. Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882

given the loud acclaim which they themselves seldom receive and in many cases it irks them.

With a dog-in-the-manger attitude, they decide to kill bowl games and take away from the football coaches and football players some of the top limelight which they have been receiving.

The strange thing about the Richmond meeting was that no college president or professor attempted to say how bowl games did injury to a college or to the students or to the football players.

At Our Expense

We feel that the time has come to call a halt to our paying the expenses of a multitude of Europeans while they enjoy visits to the United States and also the expenses of a multitude of Americans who are given tours of Europe.

We recently noted the following newspaper dispatch:

> Raleigh, Nov. 27.—Some of free Europe's foremost textile manufacturers toured the School of Textiles at North Carolina State College today.
>
> They were representatives of a group of around 300 manufacturers from Marshall Plan countries who are touring leading U. S. industrial and educational centers.

TEXTILE INDUSTRY SCHEDULE

—1952—

Jan. 14-17—PLANT MAINTENANCE SHOW, Convention Hall, Philadelphia, Pa.

Jan. 28-29—Annual meeting, **NATIONAL COTTON COUNCIL OF AMERICA**, Roosevelt Hotel, New Orleans, La.

Feb. 13-15—COTTON RESEARCH CLINIC, Pinehurst, N. C.

March 3-7—Spring meeting and committee week, **A.S.T.M.**, Hotel Statler, Cleveland, O.

Mar. 21-22—CAROLINAS-VIRGINIA PURCHASING AGENTS ASSOCIATION, Poinsett Hotel, Greenville, S. C.

April 3-4—Spring meeting, **TEXTILE QUALITY CONTROL ASSOCIATION**, A. French School of Textiles, Georgia Institute of Technology, Atlanta.

April 16-17—Spring meeting, **FIBER SOCIETY**, Clemson (S. C.) House Hotel.

April 16-18—Annual convention, **COTTON MANUFACTURERS ASSOCIATION OF GEORGIA**, Boca Raton (Fla.) Hotel and Club.

May 6-9—INTERNATIONAL LIGHTING EXPOSITION AND CONFERENCE, Cleveland (Ohio) Auditorium.

May 12-17—NATIONAL COTTON WEEK.

May 15-17—Annual outing, **CAROLINA YARN ASSOCIATION**, The Carolina, Pinehurst, N. C.

May 15-17—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Haddon Hall, Atlantic City, N. J.

June 12-14—Annual convention, **SOUTHERN TEXTILE ASSOCIATION**, Ocean Forest Hotel, Myrtle Beach, S. C.

June 23-27—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Hotel Statler, New York City.

Oct. 6-11—SOUTHERN TEXTILE EXPOSITION, Textile Hall, Greenville, S. C.

Oct. 16-17—Annual meeting, **NORTH CAROLINA COTTON MANUFACTURERS ASSOCIATION**, The Carolina, Pinehurst, N. C.

Nov. 6-8—Annual national convention, **AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS**, Boston, Mass.

— 1953 —

Sept. 17-19—Annual national convention, **A.A.T.C.C.**, Stevens Hotel, Chicago, Ill.

— 1954 —

April 26-May 1—AMERICAN TEXTILE MACHINERY EXHIBITION, Atlantic City (N. J.) Auditorium.

SOMEBODY BEAT HIM TO IT!

When we crossed on the *Queen Elizabeth* last Spring, there were four large dining room tables occupied by groups of men from England and other European countries and we learned that they were groups who had come to this country and spent a month or more visiting some industrial plants and otherwise enjoying a tour of the United States with all expenses paid by us.

Conducting such tours has become a very profitable racket to certain people who are in favor with the administration at Washington.

Not only are they paid high fees but one conductor was recently charged with providing poor meals at a low cost but receiving from our government the prices charged by the best hotels.

When we were in London, England, in May a group of 12 textile manufacturers, most of them from the South, came at government expense to visit English mills.

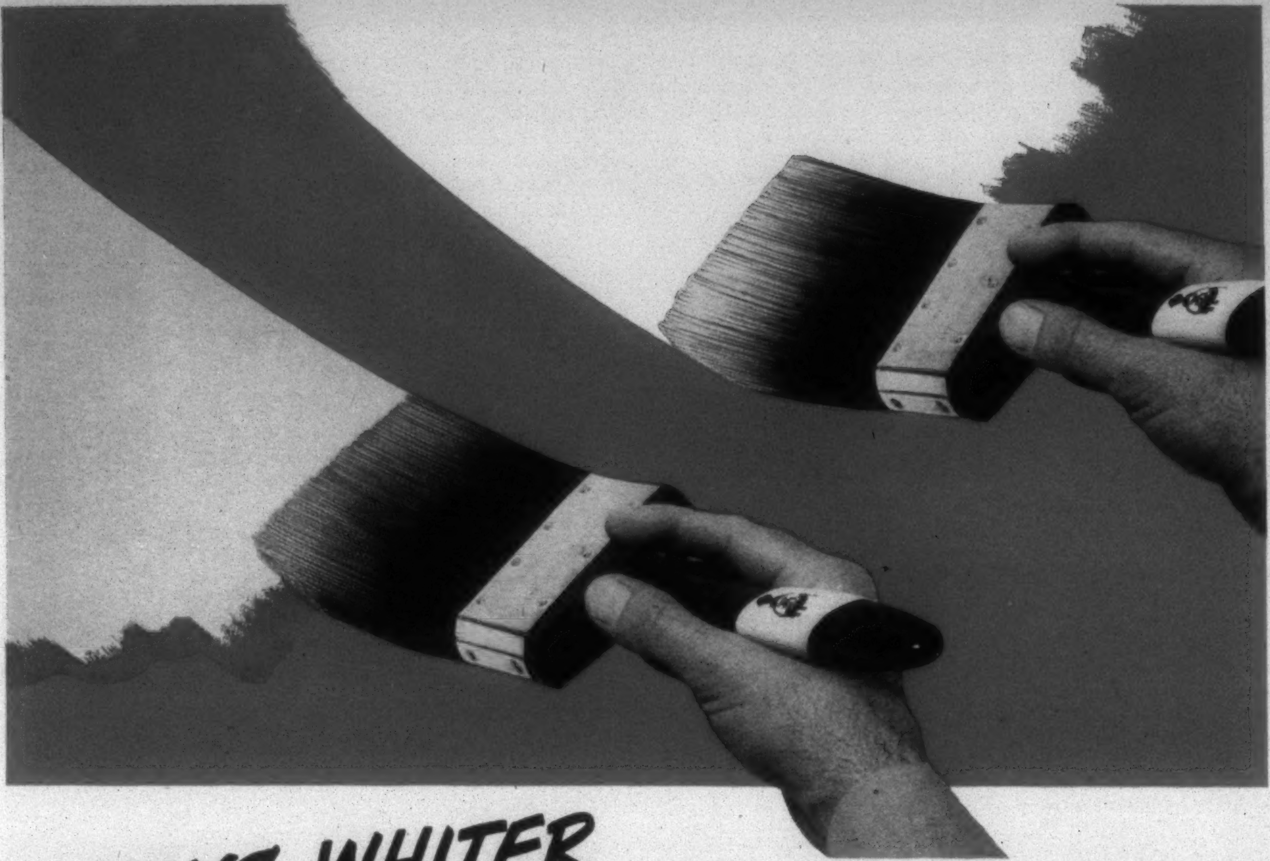
It was the first visit to Europe for most of them and they enjoyed the free tour, but one of them told us that he failed to see anything that was accomplished by the trip.

The above newspaper dispatch states that about 300 European manufacturers were, at that time, in the United States at the expense of our government. They had followed many thousands of others who had toured the United States at the expense of our taxpayers and a substantial number of Americans who had made tours of Europe with all expenses paid.

Having visited Europe last Summer, at our own expense, we can testify that it is a rather expensive pasttime.

We feel that the time has come to call a halt to paying the touring expenses of a multitude of Europeans and also providing free trips to Europe for a multitude of Americans.

A country which now has an indebtedness of $275,000,000,000 should quit playing Lady Bountiful.



STAYS WHITER because it STARTS WHITER!

INTERIOR SURFACES STAY CLEANER..LONGER ..WITH KEM SAVE-LITE..THE WHITER WHITE!

How long white paint *stays* white—and *how* white it stays—depends, in part, on *how white it is to start with.*

Sherwin-Williams KEM SAVE-LITE Finishes for mill interiors cut upkeep costs because their brilliant whiteness both starts higher and stays higher in light reflection value. These facts are borne out not only in laboratory tests, but in year-after-year experience in leading textile mills the country over.

Test KEM SAVE-LITE for yourself against any conventional mill white finish. See the difference—in initial whiteness—in hiding power—in greater covering capacity. Call your Sherwin-Williams representative for a demonstration, or write The Sherwin-Williams Co., Cleveland 1, Ohio. (Division offices, Charlotte, N. C. and Boston, Mass.)

Types to Meet Varying Requirements

Sherwin-Williams Save-Lite is supplied in several types to meet varying operating conditions, both in oil type (Save-Lite) and synthetic (Kem Save-Lite). Gloss finish gives extreme ease of cleaning; Eg-Shel greatest diffusion and reflection of light. Fume and moisture-resisting types give added resistance where chemical fumes, moisture and heat are encountered.

SHERWIN-WILLIAMS

INDUSTRIAL MAINTENANCE FINISHES

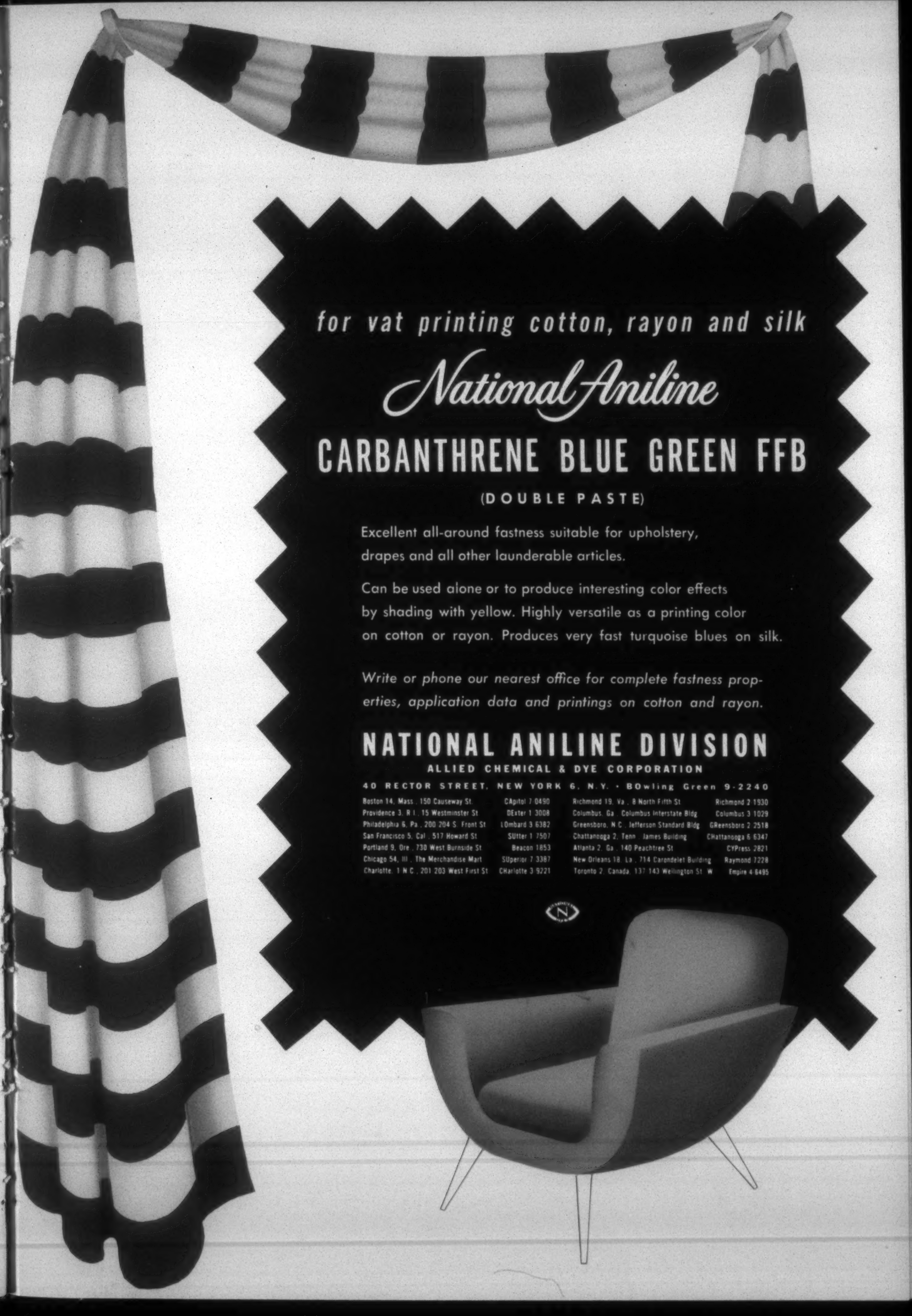
SAVE-LITE MILL WHITE • COLOR HARMONY FINISHES
MILL VILLAGE PAINTS

PERKINS
HOLYOKE ®

For the TEXTILE INDUSTRY

Cotton Rolls
Cotton and Wool Rolls
Combination Rolls
Husk Rolls
Paper Rolls
Embossing Rolls
Friction Calenders
Schreiner Calenders
Chasing Calenders
Rolling Calenders
Silk Calenders
Embossing Calenders

Seam and Slub Detectors
Cloth Pilers
Drying Machines
Mangles
Padders
Squeezers
Winders
Mist-Spray Dampener
Automatic Tensionless Dye Jigs
Wool Fiber Conditioners
Plastic Embossing Machines
Hydraulic Power Units
Mullen Testers



for vat printing cotton, rayon and silk

National Aniline

CARBANTHRENE BLUE GREEN FFB

(DOUBLE PASTE)

Excellent all-around fastness suitable for upholstery, drapes and all other launderable articles.

Can be used alone or to produce interesting color effects by shading with yellow. Highly versatile as a printing color on cotton or rayon. Produces very fast turquoise blues on silk.

Write or phone our nearest office for complete fastness properties, application data and printings on cotton and rayon.

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

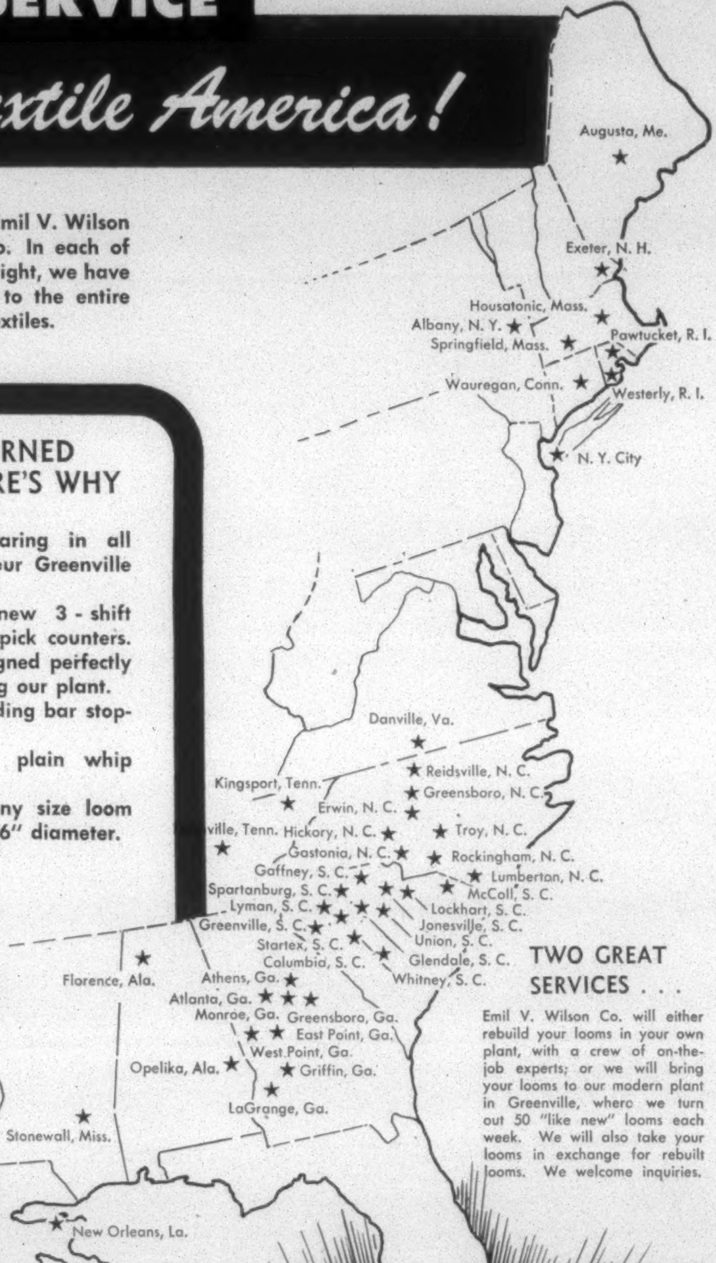
40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2240

Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Providence 3, R.I., 15 Westminster St.	DExter 1-3008	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Philadelphia 6, Pa., 200-204 S. Front St.	LOmbard 3-6382	Greensboro, N.C., Jefferson Standard Bldg.	GReensboro 2-2518
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 6-6347
Portland 9, Ore., 730 West Burnside St.	Beacon 1853	Atlanta 2, Ga., 140 Peachtree St.	CYPress 2821
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3387	New Orleans 18, La., 714 Carondelet Building	Raymond 7228
Charlotte 1, N.C., 201-203 West First St.	CHarlotte 3-9221	Toronto 2, Canada, 137-143 Wellington St. W.	Empire 4-6495

WILSON LOOM SERVICE

all over Textile America!

Yes . . . the loom modernization service of Emil V. Wilson Co. extends from Maine to the Gulf of Mexico. In each of the cities spotted on America's "Textile Map" at right, we have completed one or more loom rebuilding jobs, to the entire satisfaction of many of the greatest names in textiles.



MORE THAN 10,000 LOOMS RETURNED TO GREATER PRODUCTION---HERE'S WHY

- Every detail worked out before starting. Catalogue of parts needed for 1st class job submitted for approval.
- In rebuilding, we use finest loom parts made.
- Gauges used on every loom, and rocked in before leaving our plant.
- New 1 H. P. Westinghouse loom motors supplied if desired.
- New No. 4 Roper let-offs with cut teeth.
- We install No. 11 Motor Drives, equipped with thrust bearings.
- Cut-tooth gearing in all looms from our Greenville plant.
- We install new 3 - shift Veeder Root pick counters.
- Every lay aligned perfectly before leaving our plant.
- Electric or sliding bar stop-motions.
- Vibrating or plain whip rolls.
- We install any size loom beam up to 26" diameter.

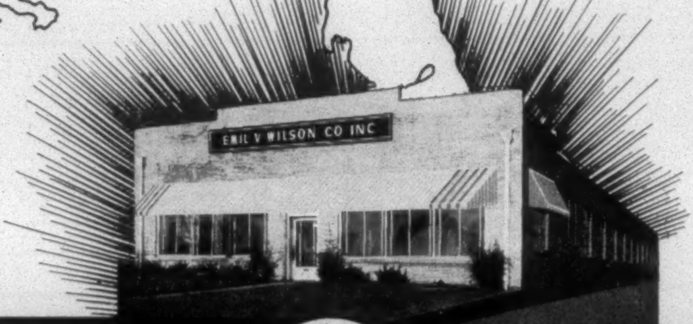
TWO GREAT SERVICES . . .

Emil V. Wilson Co. will either rebuild your looms in your own plant, with a crew of on-the-job experts; or we will bring your looms to our modern plant in Greenville, where we turn out 50 "like new" looms each week. We will also take your looms in exchange for rebuilt looms. We welcome inquiries.

WE ARE AMERICA'S LARGEST LOOM OVERHAULERS . . .

Wilson experts return 125 looms or more, each week, to profitable operation. As pioneers in loom rebuilding we employ nearly 100 experts. We have adhered to rigid standards that make Wilson rebuilt looms "like new." We will gladly furnish the names of mills in any town marked on the "Textile Map" in this ad—one of them may be your close associate or neighbor. We invite your comparison of our work, and our prices, with any *reputable* firm. We believe we can overhaul your looms better, and more economically, than your own force can do it.

Write, wire, or telephone us in Greenville, S. C. for immediate consultation on your loom problems.



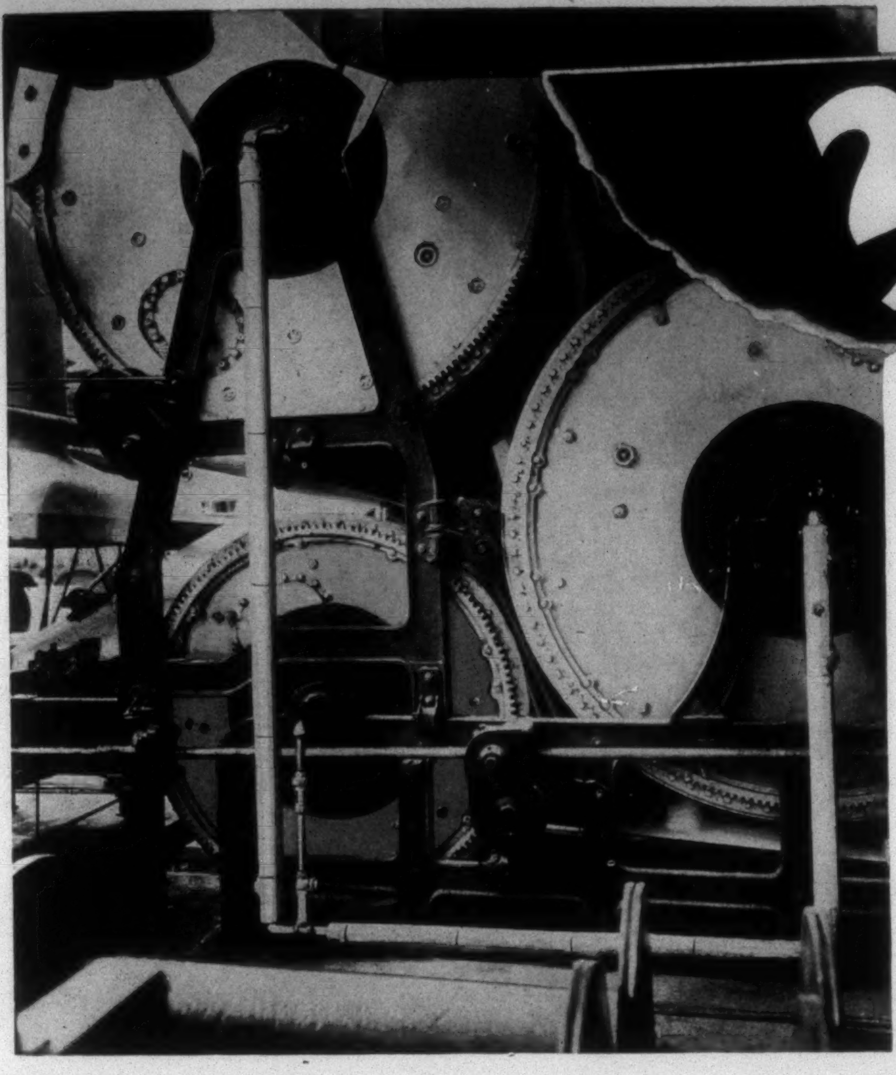
EMIL V. WILSON CO., INC.

Loom modernization Specialists

1210 NEW BUNCOMBE RD., GREENVILLE, S. C.

The Textile Industry's only plant devoted entirely to rebuilding Looms.

Telephone 3-3643



2/3 GREATER DRYING SURFACE

●

This modern slasher, utilizing two 7′ and one 5′ cylinders actually increases drying surface by more than 2/3! Production, depending upon several factors, is frequently increased by more than 50%.

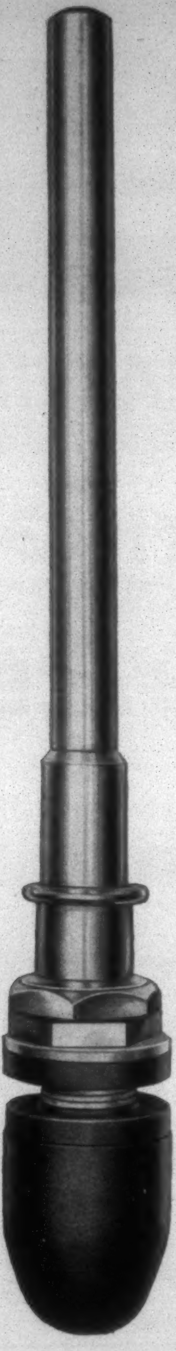
The extra cylinder is only one feature of the complete assembly. Specially designed contact rolls further increase drying surface by increasing the contact of the warp with each cylinder. The positive drive turns drying cylinders, removing all strain from the yarn, maintaining greater elasticity and uniformity. Ball bearing mountings on cylinder shafts and contact rolls provide smoother operation.

Slashers like this can be built in your mill, utilizing equipment you already have, at a minimum cost. Let us supply you recommendations and estimates — without obligation. Write or telephone — today.

WEST POINT FOUNDRY & MACHINE CO.

(Batson-Cook Company, Owners)

WEST POINT, GEORGIA

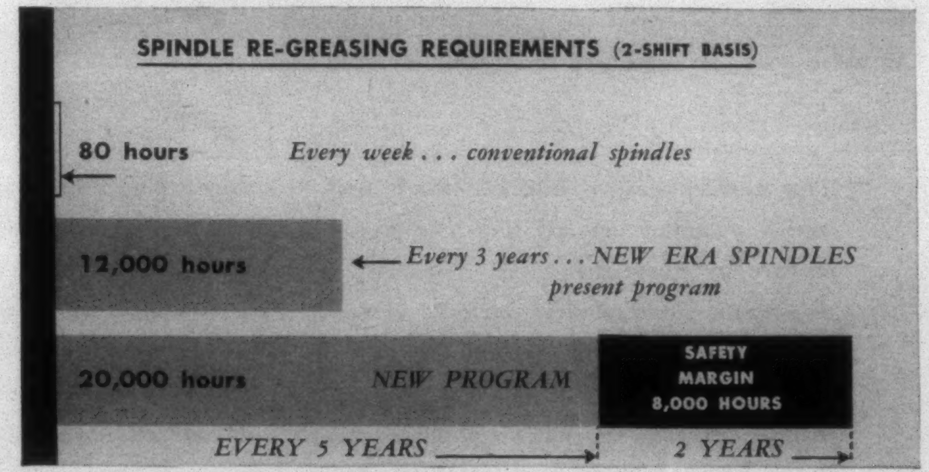


How many times have you oiled your conventional spindles since 1945?

New Departure engineers recently reported on a test made on **NEW ERA SPINDLES** that had been running for **seven years** in Chicopee Mills, Chicopee Falls, Mass., at 10,000 rpm, 16 hours per day, five days per week:

> Even after seven years of continuous service (on two shifts) without re-lubrication, a 100% noise test showed that 283 out of 284 bearings were in excellent condition.
>
> There is still enough grease remaining for further service without lubrication.
>
> It would appear that extending the re-greasing period to five years would be a safe procedure.

On the strength of this test and others still in progress, we expect soon to announce the extending of our former 3-year re-greasing recommendation to a 5-year re-greasing program . . . with a factor of safety of **two years beyond that!**



On request, a Saco-Lowell engineer will be glad to make a study of the operation of your present spindles, and indicate the specific advantages of installing New Era Spindles.

SACO-LOWELL

60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD, MAINE *and* SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENVILLE • ATLANTA

FRIENDLY SERVICE
DEPENDABLE DELIVERY
TECHNICAL HELP

THREE GOOD REASONS FOR SPECIFYING

Westvaco® CHEMICALS
TRADE MARK

CAUSTIC SODA

Liquid 50%, Standard and Rayon Grades
Liquid 70-73%, Standard Grade
Flake and Solid, 76% Na_2O

CAUSTIC POTASH

Liquid* 45%, Flake and Solid

NATURAL SODA ASH

Light and Dense

As a primary source of supply, Westvaco can give you the service you require from our expanding output of high-quality alkalis.

With delivery from various Westvaco plants via barge, tank car, tank-truck or drums (whichever is most economical), you may be able to save time and money by talking things over with us. Just say when and where!

WESTVACO CHEMICAL DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
GENERAL OFFICES • 405 LEXINGTON AVENUE, NEW YORK 17
CHICAGO, ILL. • CLEVELAND, OHIO • CINCINNATI, OHIO • CHARLOTTE, N. C.
ST. LOUIS, MO. • POCATELLO, IDAHO • LOS ANGELES, CALIF. • NEWARK, CALIF.

fmc
FOOD MACHINERY AND CHEMICAL CORPORATION

**Liquid 50% also available, shipped in tank cars only.*

Charlotte, N. C., Office: 411 Liberty Life Bldg., Charlotte 6-2857

Charlotte

BLUE ☆ STAR TEXTILE LEATHERS

Used Exclusively by Many Leading Mills

For 57 years, Charlotte Textile Leathers have maintained a reputation as the finest in quality and performance. Close day-to-day contact with the textile industry has given us an intimate understanding of their constantly changing operating problems and a first hand knowledge of the advancements in machine design. This practical experience plus modern manufacturing equipment and methods have enabled us to continually change and improve our products to keep pace with the needs of the industry.

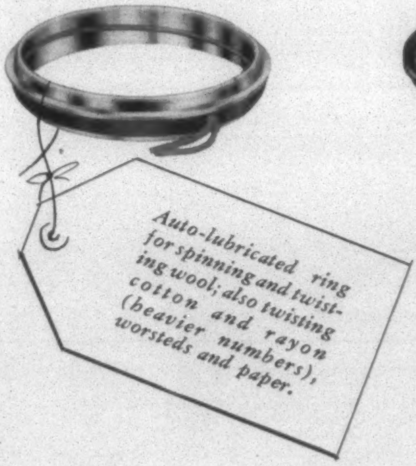
The Blue-Star line is complete . . . tailor-made to meet your specific requirements. Our wide experience and complete facilities are always at your disposal.

Write for your copy of this new booklet, without obligation.

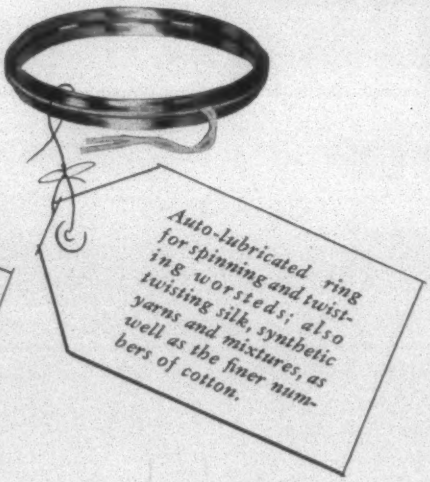
CHARLOTTE
Leather Belting Company
CHARLOTTE, NORTH CAROLINA

When changing rings, make it a CHANGE FOR THE BETTER

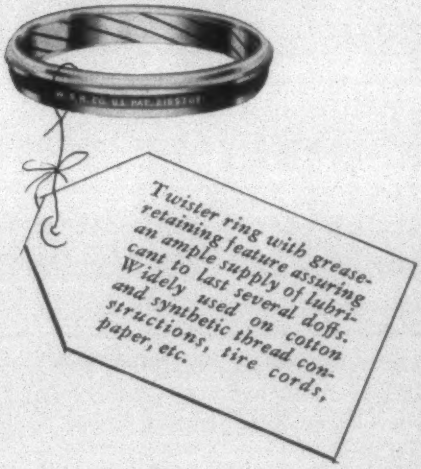
These Eadie Speed Rings give you new highs in Production and Quality Control



Auto-lubricated ring for spinning and twisting wool; also twisting cotton and rayon (heavier numbers), worsteds and paper.

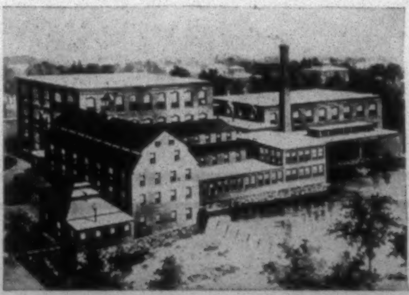


Auto-lubricated ring for spinning and twisting worsteds; also twisting silk, synthetic yarns and mixtures, as well as the finer numbers of cotton.



Twister ring with grease-retaining feature assuring an ample supply of lubricant to last several doffs. Widely used on cotton and synthetic thread constructions, tire cords, paper, etc.

WHITINSVILLE (MASS.)
SPINNING DIAMOND FINISH **RING CO.**
Makers of Spinning and Twister Rings since 1873



World's Largest Ring Plant

even distribution

DILEINE SINGLE

A Superior Inhibiting Agent
For Processing Jig Dyed Fabrics
Does Not Require Pretreatment

The exceptionally slow exhausting properties built into Dileine Single offer you maximum distribution of dyestuffs throughout large rolls of jig processed fabrics.

Dileine Single has unique leveling properties and is exceptionally stable to high temperatures. It offers superior protection against atmospheric fading.

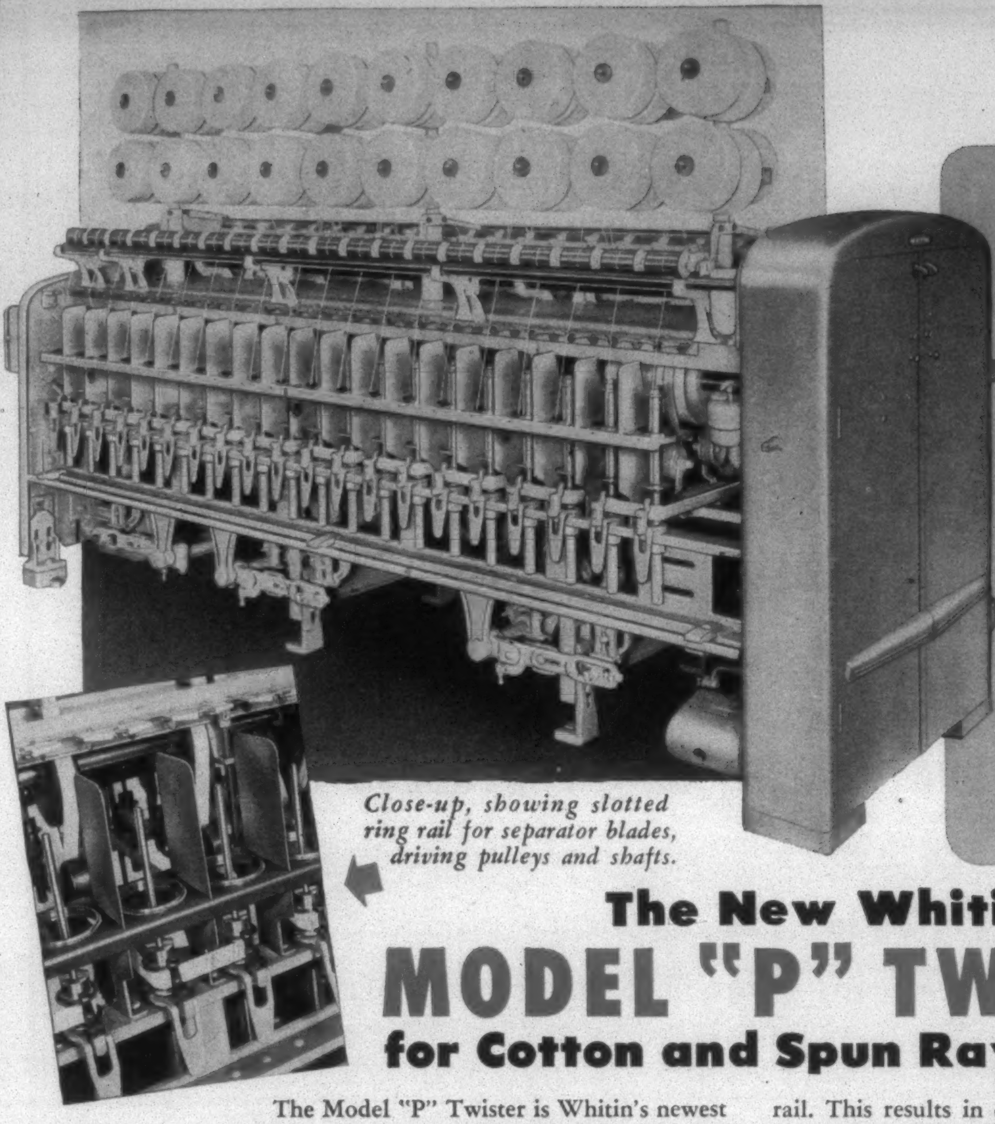
Dileine Single is applied simultaneously with the dyestuffs. No pretreatment what-so-ever is required.

We would welcome the opportunity of sending you further data on the superior properties of Dileine Single along with samples for test purposes.

Passaic, New Jersey Branches: Carlstadt, N.J. • Los Angeles, Calif.

50th ANNIVERSARY 1901-1951

JACQUES WOLF & CO.
Chemicals PASSAIC, N.J.



Close-up, showing slotted ring rail for separator blades, driving pulleys and shafts.

BETTER QUALITY YARN

●

LESS NOISE AND VIBRATION

●

LONGER FRAME LIFE AND LOWER MAINTENANCE COSTS

●

LESS FLOOR SPACE NEEDED

The New Whitin

MODEL "P" TWISTER

for Cotton and Spun Rayon Yarns

The Model "P" Twister is Whitin's newest addition to an already diversified series of ring twisters for cotton and other fibers. It is a proven machine having many new features which will be welcomed by both management and operators alike.

The line followed by the thread from the front bottom roll to the thread guide is almost vertical. This insures more uniform yarn tension, longer guide life and *better quality yarn.*

Spring counterbalancing of the ring rail eliminates dead weighting, insures smooth action of the rail and reduces wear on the builder and lifting mechanisms.

The ring rail support bracket traverses on a stationary rod placed in back of the spindle rail. This results in extremely rigid construction, lessens the possibility of yarn contamination from contact with the lifting rods and *reduces vibration to a minimum.*

Extra heavy cast iron frame construction, driving pulleys mounted on a through shaft and laminated bakelite gears meshing with metal gears in the head end, all combine to cut down noise and vibration, *lower maintenance costs* and insure *longer frame life.* Only 39" wide, the Model "P" Twister *requires a minimum of floor space,* yet provides adequate room for efficient creeling.

If you sell your yarn on a *quality* basis, you should investigate the new Whitin Model "P" Twister.

For complete details, call your Whitin representative or write for our descriptive folder.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS
CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, N. C. • DEXTER, ME.

Complete Blending, Opening, Cleaning and Picking Systems for Cotton Mills

Opening, Blending and Picking Systems for Synthetic Fibers

New, and Rebuilt, Single-Process Pickers

The Aldrich Synchronized Single Process Picking System has consistently produced more uniform card sliver than any other picking system.

Parts for Kitson Pickers Always in Stock for Immediate Delivery

AldricH MachinE WorkS

Greenwood, South Carolina

You can save if you take this cost-wise view

Yarn Carriers, too,

are

Capital Equipment

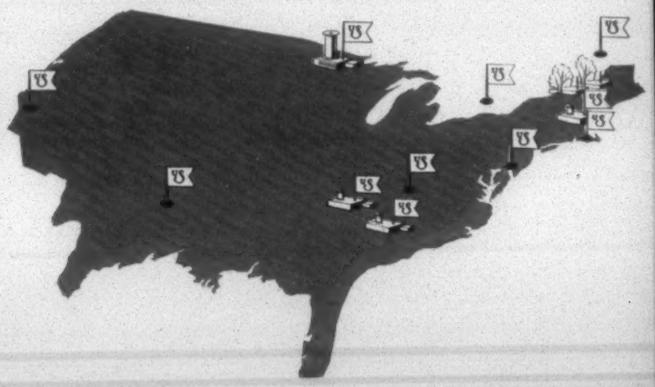
How do you regard bobbins, shuttles and other yarn carriers? Like many millmen, do you, also, think of the as incidental equipment, too low in cost to warrant mu administrative attention?

Then look at a few *annual* expenditures for yarn carri . . . $80,000 . . . $60,000 . . . $45,000 . . . enough to buy several units of processing machinery.

When you take the proper view of yarn carrier purchas you'll find they, too, should be classed as capital equipment. And there's a real opportunity for substantial savings if you buy them with equal care to get the most for your money . . . in advanced design, in lasting durability, and in top-flight performance.

It is taking this cost-wise view that has led so many of t nation's best operated mills to standardize on U S Bobbins, Shuttles, and other yarn carriers. They know they are dealing with men who "speak their language" . . . and with a firm whose aptitude is proved by a 93-yea record of leadership.

Whether you are equipping a new mill or replacing wor out carriers, talk to a U S sales representative first. You'll find it pays . . . in better yarn and fabric quality, and in lower operating costs.



U S owned timber properties permit complete control of wood sto selection and every step in processing, from forest to finished products. Five manufacturing plants, North and South, provide ample facilities to produce and deliver promptly the cost-saving yarn carriers you need, in any quantity.

Anywhere in textile America, you are near the headquarters of a U S specialist in yarn carrier selection. He'll call at your request.

U S BOBBIN & SHUTTLE CO.

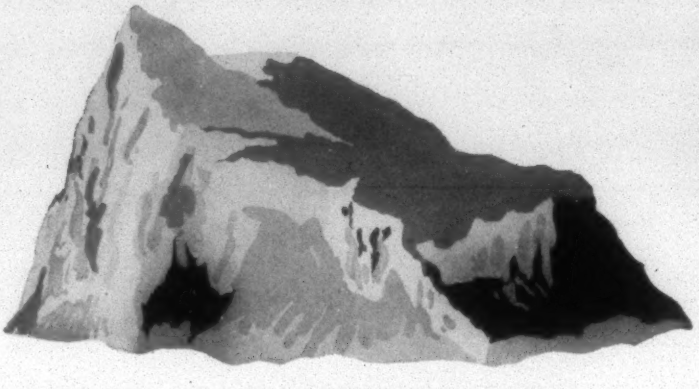
LAWRENCE, MASS.
PROVIDENCE, R. I.
PHILADELPHIA, PA.
JOHNSON CITY, TENN.
GREENVILLE, S. C.
CHARLOTTE, N. C.
MINNEAPOLIS, MINN.

LOS ANGELES: E. G. Paules, 1762 W. Vernon Ave.
DALLAS: O. T. Daniel, Textile Supply Co.
CANADA: W. J. Westaway, Montreal, Que., Hamilton, Ont.

US

Ste-Hed-Co and Southern

a story of achievement!



A FOUNDATION SOLID AS GIBRALTAR

TO the seasoned veterans of the Textile Industry, STE-HED-CO Products need no introduction. These products have long played a leading part in the scientific advance and development of weaving—they have been associated with every modern weaving accomplishment for the past half century.

To the younger generation, the new faces in the industry, the Quality of STE-HED-CO and SOUTHERN Products will be a revelation. This QUALITY immediately reflects itself in product performance . . . and PRODUCT PERFORMANCE explains the enviable world-wide reputation STE-HED-CO and SOUTHERN Products enjoy.

STEEL HEDDLE leadership has been constant over the years. It began in 1898, when in a small plant on the outskirts of Philadelphia, Pa., the company foundling fathers pledged themselves to obtain through research and experience, the knowledge to manufacture ONLY products of superior quality to assure more efficient production at a more economical cost. A tradition adhered to during STE-HED-CO and SOUTHERN'S entire business history.

From its modest beginning, when the now famous "FLAT STEEL HEDDLE" was first introduced to replace the then universally popular Cotton Harness and Round Wire Heddle, the company has pioneered in every stage of weaving and has consistently inaugurated new and better methods for handling yarn in its process before weaving.

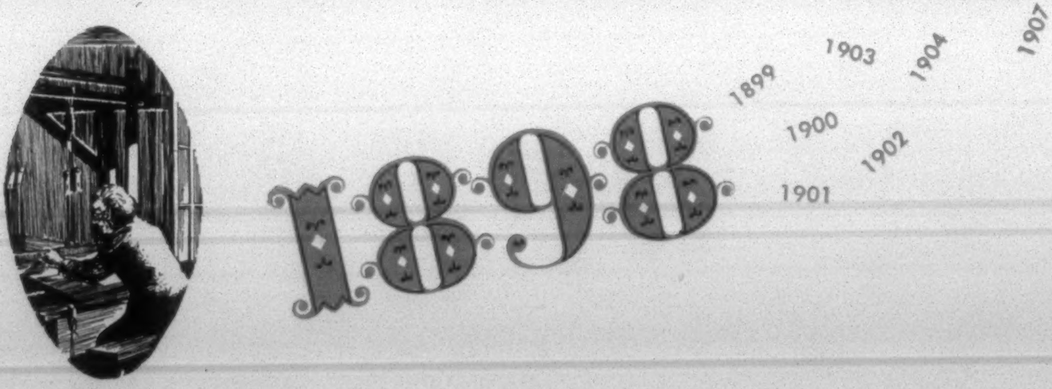
SOUTHERN SHUTTLES, organized in 1931 to round out a complete line of TEXTILE ACCESSORIES, is a Division of the Steel Heddle Mfg. Co. This Division, housed in its own air-conditioned plant, is designed, constructed, specially equipped and fully staffed to exclusively produce the world's finest and most durable Shuttles. And . . . Southern Shuttles has sponsored and pioneered all major shuttle improvements.

STE-HED-CO and *SOUTHERN SERVICE* has always been first. A competent engineering staff supplemented with practical mill men do *all* the mill contact work. These trained experts are conversant with mill problems. They appreciate new applications and understand what successful product performance means.

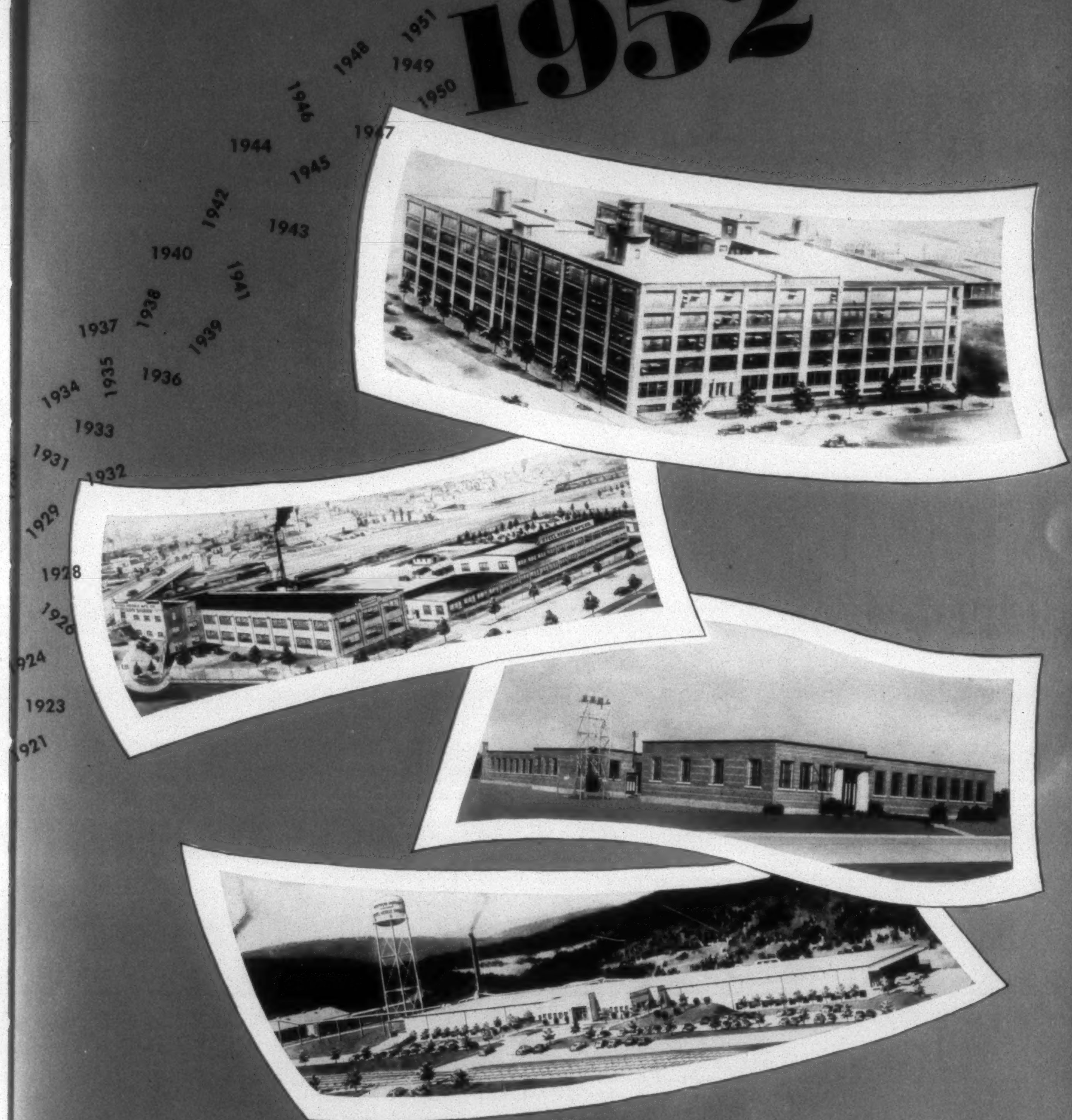
Today, possessing over 200 U.S. Patent grants, and with five large plants in the U.S.A. and Canada, the company is justly proud of its many contributions to the industry.

Space won't permit listing them all, but hereunder are just a few STE-HED-CO and SOUTHERN achievements . . . Their contributions to Textiles.

SLIDE HOOK FRAMES • DOUBLE BAR FRAMES • ALUMINUM FRAMES • FLAT STEEL DOUP HEDDLES • DUPLEX HEDDLES
TEMPERED STEEL HEDDLES FOR WIRE WEAVING • STAINLESS STEEL HEDDLES FOR WEAVING ARTIFICIAL YARNS
DRAWTEX HEDDLES & FRAMES SUITABLE FOR BARBER-COLMAN DRAWING-IN MACHINES • A VARIETY OF NEW WEAVING & WARPING REEDS
APPLIANCES FOR WARPING & SLASHING • A NEW AND SPECIAL TYPE OF HARD CHROME PLATING • TEMPERED DOGWOOD SHUTTLES
PATENTED SHUTTLE EYES FOR EVERY FABRIC • HIGH SPEED SHUTTLE SPRINGS • MAGNUM TIP CONSTRUCTION • STEHIDE & DUROWOOD SHUTTLES



1952



STEEL HEDDLE MFG. CO.

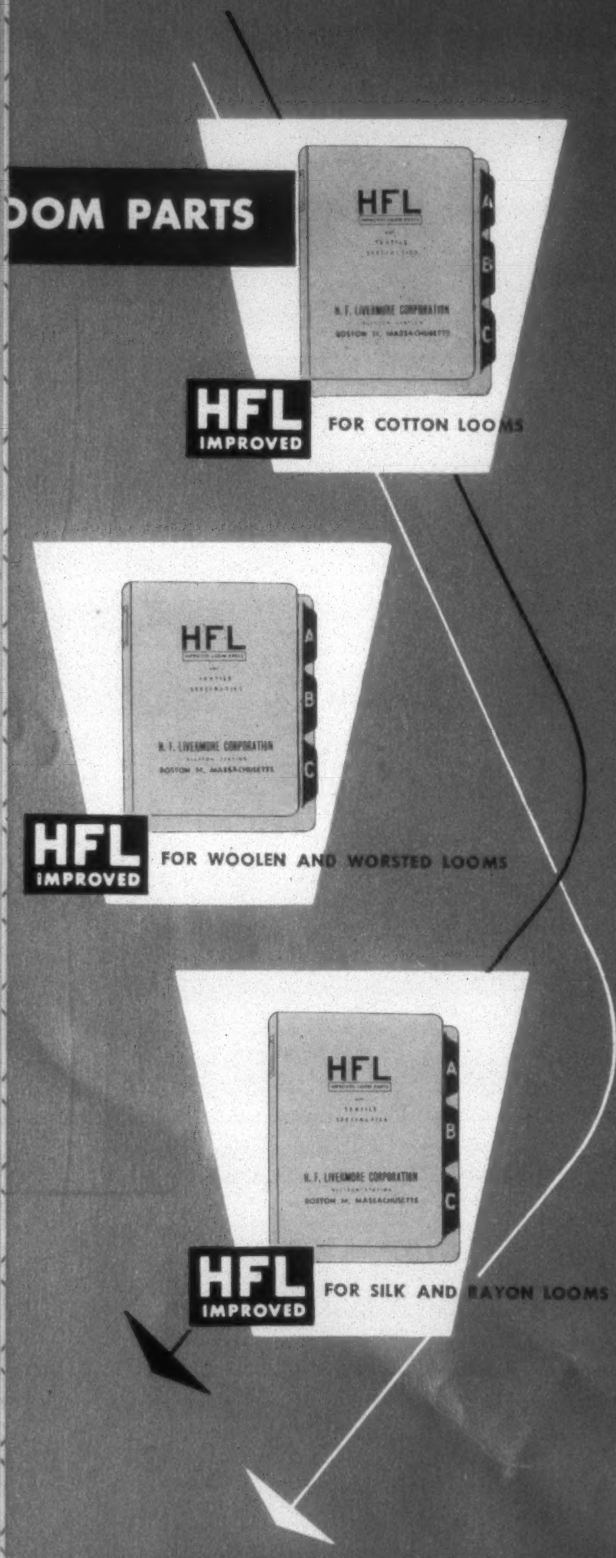
2100 W. ALLEGHENY AVE. • PHILADELPHIA 32, PA.

Other Plants and Branch Offices: Greenville, S. C. • Atlanta, Ga. • Greensboro, N. C. • Providence, R. I.

SOUTHERN SHUTTLES . . . Paris Plant . . . Greenville, S. C. A Division of STEEL HEDDLE MFG. CO.

STEEL HEDDLE COMPANY of CANADA, LIMITED 310 St. Hubert Street • Granby, Quebec, Can.

1-K-88



Years ago
we provided

IMPROVED CATALOGING...

the KEYSTONE to
LIVERMORE SERVICE

LIVERMORE LEADERSHIP is exemplified to a marked degree by these three catalogs of HFL IMPROVED LOOM PARTS, which have **for a number of years** (as most mill men already know) embodied the simplest, most direct method of locating and identifying a particular loom part.

SPECIAL "LOCATOR TABS" provide quick reference to any part because each catalog is indexed

- A numerically according to **LOOM PART NUMBERS**
- B numerically according to **HFL PART NUMBERS**
- C according to **MOTIONS**

FINGER-TIP CONTROL has long since eliminated the old hide-and-seek inefficiency of the "general catalog."

Do you have a copy of this catalog at hand? Do you need extra **copies?** If so, please specify make and model of loom, also genera material that you weave, and they will be sent promptly . . . **withou charge.** Another instance of LIVERMORE LEADERSHIP.

HFL
IMPROVED LOOM PARTS

H. F. LIVERMORE CORPORATION
ESTABLISHED 1887

EXECUTIVE OFFICES & PLANT
BOSTON 34, MASS.

SOUTHERN DIVISION
GREENVILLE, S. C.

textile bulletin

VOL. 77 DECEMBER, 1951 NO. 12

A Mill Executive Speaks Out To Labor

UNSCRUPULOUS practices indulged in by unions were scored recently by Herman Cone, president of Cone Mills Corp., Greensboro, N. C., in an address at a banquet honoring Cone employees with 25 or more years service with the firm.

Stating that he was not opposed to employee representation and believed in honest collective bargaining on a local basis, Mr. Cone declared, however, that the union's tactics in the use of misleading statements, half-truths, and lies "is extremely distasteful to us, and I am sure that it is equally as distasteful to the vast majority of our loyal employees."

Mr. Cone's address, in part, follows:

"Recently the C.I.O. has indulged in some of these tactics, but before pointing out to you actual cases, I want to go on the record now as stating that I am not opposed to employee representation. I believe in honest collective bargaining on a local plant basis. I do not believe in the type of collective bargaining where all local plant problems are subject to dictatorial orders from a national headquarters. I believe in the right of employees to join or not to join a union. I firmly believe that the interest of our people can better be served by direct negotiations with our people in the absence of a third party. In our Greensboro non-union plants, I believe that we have established a successful grievance procedure and other policies whereby our employees can deal directly with us without fear of discrimination and that they will always receive a square deal. Our experiences in working directly with our employees have been most successful and beneficial to the employees and the company. My comments and criticism of the union are not based upon the fact that we are opposed to negotiation in dealing with our employees. It is based upon the unscrupulous practices indulged in by the union, some of which I will now tell you about.

"The C.I.O. Textile Workers Union of America issues an official publication in New York City entitled *Textile Labor*. A great deal of the Oct. 20 edition was devoted to our company. I can well understand the reason for devoting so much space to us because, as you are aware, the T.W.U.A. won a couple of right important elections at Proximity and Print Works just a short time previously. I have no fault to find with the fact that the union is happy over the results of the election. I do object, however, to some of the misleading statements made in this edition. Mind you, this paper came out after the election and so none of these statements had anything to do with the results of the election. It, therefore, seems to me that the only purpose that the C.I.O. had in mind in publishing this article was to try by fair means or other to show that this company was making unreasonable profits. It seems to me that in this instance the C.I.O. is trying to drive a wedge between the company officials and our employees. It seems to me they are continually trying to drive a wedge between the non-union and union groups in our plants.

"There is an article on page six of that issue headed as follows: "Cone Takes Care of its Own." This is based on a speech which William Pollock, T.W.U.A. general secretary-treasurer, made at the joint board's annual barbecue before the decertification election at Proximity and Print Works. Part of his talk was devoted to a financial statement on Cone Mills which we filed with the Securities and Exchange Commission in Washington. Mr. Pollock's analysis contained some true facts, some outright lies, and some half-truths.

"The statement to which Mr. Pollock refers and from which he obtained his data is a very carefully prepared document which the government required us to prepare for distribution before The Moses Cone Memorial Hospital, my brothers and I could sell shares of our stock. Every detail had to be correct as the Securities and Exchange Commission is charged with the responsibility of prosecuting anyone who issues false or misleading information. Those of us who recently sold some of our stock had to give our personal guarantee that the data was correct. If we had misrepresented the facts and figures, my brothers and I could have been sent to jail for it. Several of our officers spent many hours of work in accumulating the facts, which were checked and double checked by our lawyers and certified public accountants. The C.I.O. used the data contained in that report but twisted the figures and information so as to give to the readers of their paper a thoroughly erroneous impression of the facts. It seems to me that the law should prohibit such tactics and should require the same guarantee of truthfulness on the part of the C.I.O. in this instance as it does on the part of the company and its stockholders.

"Here is one of the examples of a half-truth, and I quote: 'An 80 to 1 Parlay.' Pollock said S.E.C. figures showed a $100 share of stock in Cone Mills purchased in 1940 would today be worth $8,625. . . . By this statement, he inferred that in 1940 a share of our stock could have been bought for $100; or, in other words, he led you to believe that in 1940 it was worth about $100. I looked up our old records and found that in 1940 our stock was worth approximately $5,500 a share. The original investment was $100 a share. That part is true, but please bear in mind that this $100 a share investment was made in 1895 and not in 1940, as Mr. Pollock inferred in his half-truth. In other words, his figures were a half century out of date, but he didn't tell you that. He did even worse; he left the impression that they were only 11 years old.

"Now, let's see why our stock was worth $5,500 in 1940. Many of you who have been here over 25 years can remember my father, Mr. Ceasar Cone. Some of you may even remember Mr. Moses Cone, who died in 1908. These two gentlemen believed in the Southern textile industry and around 1895 put all the money that they owned or could borrow from friends and relatives into the building of the Proximity Mfg. Co. It started in about 1896 with approximately 250 looms. The total amount of money invested at that time was $200,000—divided into 2,000 shares of $100 each, so that you see when the company started out there were only 2,000 shares of stock outstanding. A few years later 3,000 more shares were sold, making the total number of our shares 5,000. The number of shares remained at 5,000 until 1945, when a reorganization took place. The company prospered and my father and uncle were willing to "parlay" their earnings, because for about 20 years they did not take one penny of dividends out of the business. They plowed the earnings back into the company and that is why, when my father died in 1917, the shares that he owned at a cost of $100 apiece were worth approximately $1,275 apiece. The investment proved to be profitable. These men took a businessman's risk and they won. Since the death of our founders, those of us left with the responsibility of running the business have tried to follow out the policies which they instituted. Every year we have saved a part of our earnings for future expansion and as a safeguard against a rainy day. Our stock has gradually increased in value from year to year by reason of this conservative policy, which has been of benefit to our employees as well as to our stockholders. If we had paid too much of our earnings throughout the years to our stockholders in dividends, we would never have been able to provide anything like as many jobs as we have at present. Our plants would not be as modern as they are at present. We would not be able to compete with up-to-date mills. Right now, when we are going through a rather drastic recession, we would not have the resources to keep running.

"Here is another example of half-truth: 'Cone Mills profits for the first five months of 1951 were 12.4 million.' The facts are that these figures are profits before taxes. Mr. Pollock didn't tell you that income taxes for the first five months of 1951 were nearly 6½ million dollars and that our net profits were less than half of 12.4 million. I call that a good example of a half-truth. Everyone knows that income taxes must be paid before any earnings accrue to the stockholders, but Mr. Pollock left out that very important item.

"Here is an example of an outright lie, and I quote: 'Dividends so far this year have been $1.20 a share or $360 on that *$100 investment in 1940.*' The $1.20 per share dividend is correct, but in the above statement Mr. Pollock definitely said that $100 invested in 1940 returned a dividend of $360 in 1951. I told you before that no one could have bought a share of our stock for $100 in 1940. It would have taken about $5,500 at that time to have bought a share of our stock. The true facts in this case are as follows: If a person had invested $100 in our stock in 1940, he would have received about $6.55 in dividends during 1951.' Mr. Pollock said that he would have received $360 in dividends. He made a $353.45 error and was, therefore, off the beam to the extent of over 5,000 per cent.

"While I am talking about shares of stock, it occurs to me that some of you may think there is something mysterious about our stock and that it is only available to members of the Cone family. About a month ago the Moses Cone Hospital, which incidentally is the largest stockholder in our company, my two brothers and I, sold some of our stock. Even before we made the sale, our stock was being bought and sold quite freely, and ever since 1940 it could have been purchased by Mr. Pollock or anyone else. Today it is being traded on the New York Stock Exchange and anyone can buy or sell it by picking up the phone and calling any one of several dealers right here in Greensboro.

"Now, if I wanted to indulge in some half-truths and double talk, I could say: In 1940 our stock was worth $5,500 a share and now our stock is worth only about $30 a share, as that is about what it is being sold for at present. I could make it sound like our stock has taken a huge nose-dive in the last 11 years. I'm not going to make that statement because it would be misleading. The reason is obvious. In between 1940 and 1951 the number of our shares has been increased. There are 300 shares now for every one outstanding then. Mr. Pollock has used this fact as the basis of a half-truth. I will not.

"The article then went on to list some of the salaries which our officers receive. The figures are correct, but here again it seems to me that the only purpose in listing these salaries is to impress upon the readers that they are too high. I am not going to comment on what Mr. Pollock had to say about my own compensation other than to state that, if it becomes necessary to reduce it, I would gladly work for this company for nothing, provided that I could do my job in a friendly and congenial atmosphere. As far as the balance of the salaries are concerned, I have no hesitation in saying that they are reasonable and correct. The salaries of our officers, as well as the wage scale of our employees, are all subject to the control of our board of directors. It has been our policy for many years to keep our wages strictly in line with wages paid in competitive companies, and that same policy goes for compensation of our salaried employees and to our officers. We pay our officers well and also expect them to more than earn their salaries. It must also be remembered that 'Uncle Sam' takes a much higher percentage in the way of taxes from salaries in the higher brackets than he does in the lower brackets. Take, for instance, an officer without dependents who receives $50,000 in salary. Under the new law he will have to pay $28,466 in 1952 in federal income tax, if he has no other income besides his salary. This is 57 percent of his salary. An employee without dependents who earns $60 a week will have to pay $542, or only 18 per cent of his earnings.

"The article went on to comment about the sale of stock. Here, again, Mr. Pollock indulged in some misinformation. He stated, and I quote: 'The Cone family is selling some of the stock, 400,000 shares. For these shares the Cone family will get more than eleven million.' As a matter of fact, my brothers and I did not sell 400,000 shares. We sold 300,000 shares and the hospital sold 100,000 shares. These facts are clearly stated on page four of the S.E.C. document. Anyone able to read can see that.

"Then he went on and stated, and I quote: 'What does this mean?' Pollock asked. He answered himself. 'It means that no matter what happens the Cone family is well fixed.' I admit that I am looking after the interests and welfare of my family, just the same as I think that every prudent husband and father should do. I also feel, so long as I remain the acting head of this business, I should look after the welfare of every employee who works for it. My brothers and I thought it was good, prudent business for us to have sold a part of our shares in this business and that is why we did it."

Dan River's 'X-2' Announced At T.R.I. Meeting

ANDRE BLUMENTHAL, vice-president of Sidney Blumenthal & Co., New York, was re-elected president of Textile Research Institute at the 22nd annual meeting of the group Nov. 8-10 in New York City and Princeton, N. J. Percy S. Howe, Jr., president of American Thread Co., was elected vice-president and chairman of the executive committee succeeding H. Gordon Smith, executive vice-president of U. S. Rubber Co. Mr. Smith continues as a member of the institute board of trustees. Paul C. Alford, a member of the T.R.I. staff, was re-elected secretary of the institute and Donald H. Powers of Warner-Hudnut Co., was elected treasurer to succeed Richard T. Kropf of Belding Heminway Co.

Four new trustees elected were Sydney M. Cone, Jr., of Cone Mills Corp., Greensboro, N. C.; A. G. Ashcroft of Alexander Smith, Inc., Yonkers, N. Y.; Russell B. Newton of Dan River Mills, Inc., Danville, Va.; and Dr. W. H. Charch of E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. They were elected for three-year terms. Retiring trustees are Mr. Kropf; H. Wickliffe Rose of American Viscose Corp.; Dr. G. P. Hoff of the Du Pont rayon department; and Dr. Miles A. Dahlen of the Du Pont fine chemicals division, organic chemicals department.

Morning and afternoon technical sessions featured the opening day of the meeting, the second day was devoted to general sessions and the final day was spent in an open-house inspection tour of the T.R.I. laboratories at Princeton.

Chairman of the day for the technical sessions was Dr. James H. Wakelin, director of research for T.R.I. Dr. Milton Harris, president of Harris Research Laboratories, Inc., Washington, D. C., headed the morning period. Dr. Walter Hamburger, director of Fabric Research Laboratories, Inc., Boston, was chairman for the afternoon session.

A highlight of the morning technical session was the first public report on the wool project which Textile Research Institute has been carrying on under the triple-sponsorship of interested mills, the Wool Bureau and the Department of Agriculture. The report was made by Werner von Bergen, director of research, Forstmann Woolen Co., and Dr. Wakelin. It was pointed out wool manufacturers long have believed that aging was beneficial to wool but this was the first time the results have been measured.

Mr. Von Bergen and Dr. Wakelin said aging and steaming, used together or individually, make it possible for wools to be spun close to their spinning limit with higher efficiency. In some cases, aging and steaming permits the spinning limit to be exceeded.

Involved in the tests were four lots of wools: two domestic, one from Australia and one from New Zealand. They were Australian merino 70s, domestic Rambouillet 64s, domestic Targhee crossbred 58s and New Zealand Corriedale crossbred 58s.

The wool was processed and converted into serge by Forstmann Woolen under direction of Mr. von Bergen.

The conclusions drawn from the work to date included:

1. Aging is related to the relaxation of strains put on the fibers by previous processing.

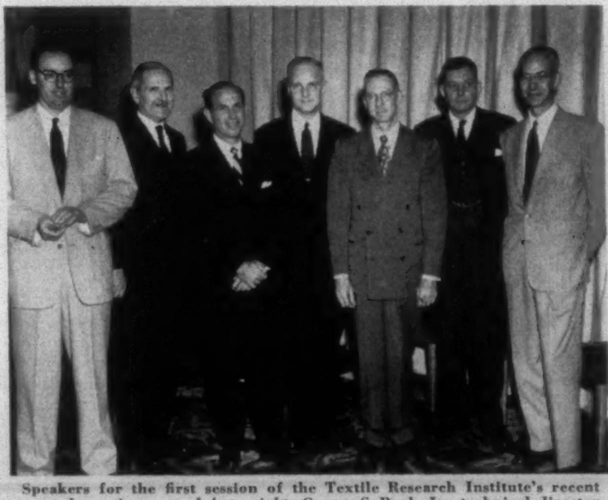
2. The benefits of aging also may be gained by steaming. A ten-minute steaming cycle boosts spinning efficiency to both fresh roving and roving aged for three weeks prior to steaming. Thus, it seems possible to accelerate aging through an increase in the temperature during aging. Though both single and double yarns have been steamed to set the twist, a further aging of about three weeks raises the weaving efficiency by two per cent.

3. Aging roving and yarn at 70 per cent relative humidity and 70 degrees F. raises the efficiency of spinning and weaving and even a few days of aging gives a noticeable decrease in the number of "ends down" on the spinning frame.

4. The fineness of the wool, regardless of its geographical source, is the dominant factor in controlling the ease, efficiency and character of the product.

5. The core-boring method of determining diameter of wool fiber is effective in predicting the shrinkage and fineness.

6. The only influence of environment or geographical



Speakers for the first session of the Textile Research Institute's recent annual meeting were, *left to right:* George S. Buck, Jr., technical director for the National Cotton Council; Werner Von Bergen, director of research for Forstmann Woolen Co.; Milton Harris, president of Harris Research Laboratories; James H. Wakelin, director of research for T.R.I.; Walter J. Hamburger, director of Fabric Research Laboratories, Inc.; G. K. Lake, director of research for Pepperell Mfg. Co.; and Linton G. Ray, Jr., of Du Pont's rayon department.

source of the wool in its processing appeared in scouring. Under the same conditions, the Australian 70s had a residual grease content of 0.27 per cent while the New Zealand 58s had about 1.38 per cent.

This difference may have resulted from the type of impurities associated with the different environments. In support of this theory, the two domestic wools, both from the same region, scoured to the same residual grease, though they differed greatly in diameter.

7. Apparently, the "overscouring" of the Australian 70s did not interfere with later processing.

8. During processing all four wools showed similar progressive changes. The main physical properties, such as stiffness, breaking elongation and tenacity, generally rise from the grease wool to the yarn and decrease from gray goods to finished fabric.

9. Yarns of medium wools were found to have a darker shade after dyeing than those spun from fine wools. The 58s gave a 30 per cent darker shade when dyed in navy blue under identical conditions with the fine wools. The dye "take-up" in both grades was the same.

10. Single fibers taken from steamed yarn showed a marked decrease in ability to accept stain or dye. This results from the effect of steaming and attendant laying down of upturned scales, showing that the scale edge is the important region in controlling the rate of "dye uptake." A graduate rise in dye acceptance is caused by progressive handling of the fibers before and after steaming.

Another speaker at the morning technical session, George S. Buck, Jr., technical director of the National Cotton Council, declared that "the full potential in designing cotton fabrics specifically for desired consumer qualities is not being fully realized.

Up to their ankles in the revolutionary new chemically-treated rayon fiber, that the Dan River Mills' research laboratories announced to the textile industry at the annual meeting of the Textile Research Institute. The men responsible for this new process, known as X-2, are *(left to right)* L. K. Fitzgerald, research and development manager; Russell B. Newton, president; and Dr. H. Y. Jennings, research director. In announcing the process, Mr. Newton said that the rayon cloth treated with X-2 promises to double the wear-life of rayon clothing, guarantees permanent shrinkage control, offers increased wrinkle resistance, and makes all-white rayon garments practical for the first time in textile history.

"Perhaps there is an overemphasis on strength and spinning performance—too high a degree of competition in producing 'standard' fabrics," Mr. Buck said. "Market research studies demonstrate a consumer demand that should mean an attractive business for enterprising mills designing and promoting cottons that drape better, wrinkle less, or have extra warmth."

The afternoon technical session stressed new work in the fields of synthetics and was addressed by G. K. Lake, director of research for Pepperell Mfg. Co., and Linton G. Ray, Jr., of the rayon department, E. I. du Pont de Nemours & Co., Wilmington, Del.

Dr. Lake discussed the distinction between the "older" synthetic fiber produced before the war and the "new" high polymers introduced more recently. Fibers from the newer synthetics may broaden the use for heat-setting, he pointed out.

Orlon acrylic fiber in continuous filament form, because of its "silk-like" mechanical properties, ironing properties and moisture insensitivity, may have use in luxury fabrics which are at the same time highly functional, Dr. Ray said. This yarn's applications have to a large extent been industrial.

"This presentation would be incomplete," he said, "if I did not point out that the textile fibers now in existence may be only the first of many fibers and may themselves be improved. We are confident that once the characteristics desired in a new textile fiber are clearly enough defined, research has a good chance to produce a fiber with those characteristics. One of the major concerns of the textile industry should be to define more completely what properties are wanted in new textile raw materials."

Theme of the general session Nov. 9 was "Impacts of Research in the Textile Industry" and a highlight of this session was the revelation by Dan River Mills, Danville, Va., of a new finish which makes possible viscose rayon fabrics that are fully launderable, white, long-wearing and wrinkle resistant throughout their useful life. According to Russell B. Newton, Dan River president, this will open up broad markets hitherto barred to viscose rayons, such as men's shirts.

The chemical treatment, known so far only as X-2, is given the fabric as one of the last stages of processing, and after dyeing. It is said to chemically modify the cellulose itself in an irreversable reaction so that the material cannot be made to revert to its previous form or qualities. Cost has not been fixed, Mr. Newton said, although it would be moderately higher than resin treatment.

Application is at the same speed and temperatures, and on the same equipment, as is used for applying resin, it was pointed out by Dr. Harley Y. Jennings, director of research at Dan River. That would mean exposure for about a minute to 270° to 300° F. following padding of the goods with the chemical compound, constitution of which remains undisclosed on the advice of patent attorneys. In that brief time, the chemical treating compound reacts with the hydroxyl group of the cellulose molecule to change its nature, according to Dr. Jennings.

Commercial production on such fabrics has started at the firm, Mr. Newton declared, and are expected to be on the market as garments in a small way by next Fall with volume availability in the Spring of 1953. The company plans to make the process available to other concerns, Mr. Newton said, but no decision has been reached as yet as to whether it will be by license, by sale of the chemical, or by other means. Promotion also is being delayed pending adoption of a name, it was noted.

L. K. Fitzgerald, director of the pilot plant at Danville, Va., in discussing the process and its results noted that it increased the flex life of all-viscose fabrics on a Stoll wear tester three to six times over similar resin-treated goods, depending on the construction. This may be taken as a good indication of increased wear resistance, he pointed out, although it would not be proper to state that wear life was doubled or tripled as a result of the processing. Extensive use tests are now under way, particularly on slacks and shirts, among the company's truck drivers, as well as others.

It was noted that 20 launderings produced about two per cent shrinkage (or less than cotton) as compared with resin-treated fabric which shrunk 14 per cent in one direction and nine per cent in another. Other advantages cited included elimination of all chlorine retention, very considerable resistance to mildew and rot, immunity to alkaline and resistance to acid bleaches, no yellowing of white goods, stability against stretching as well as shrinkage, less pickup of perspiration odor, lack of any fishy odor in the finish. Hand also can be varied over a wide range to suit individual taste from very soft to very crisp, it was emphasized.

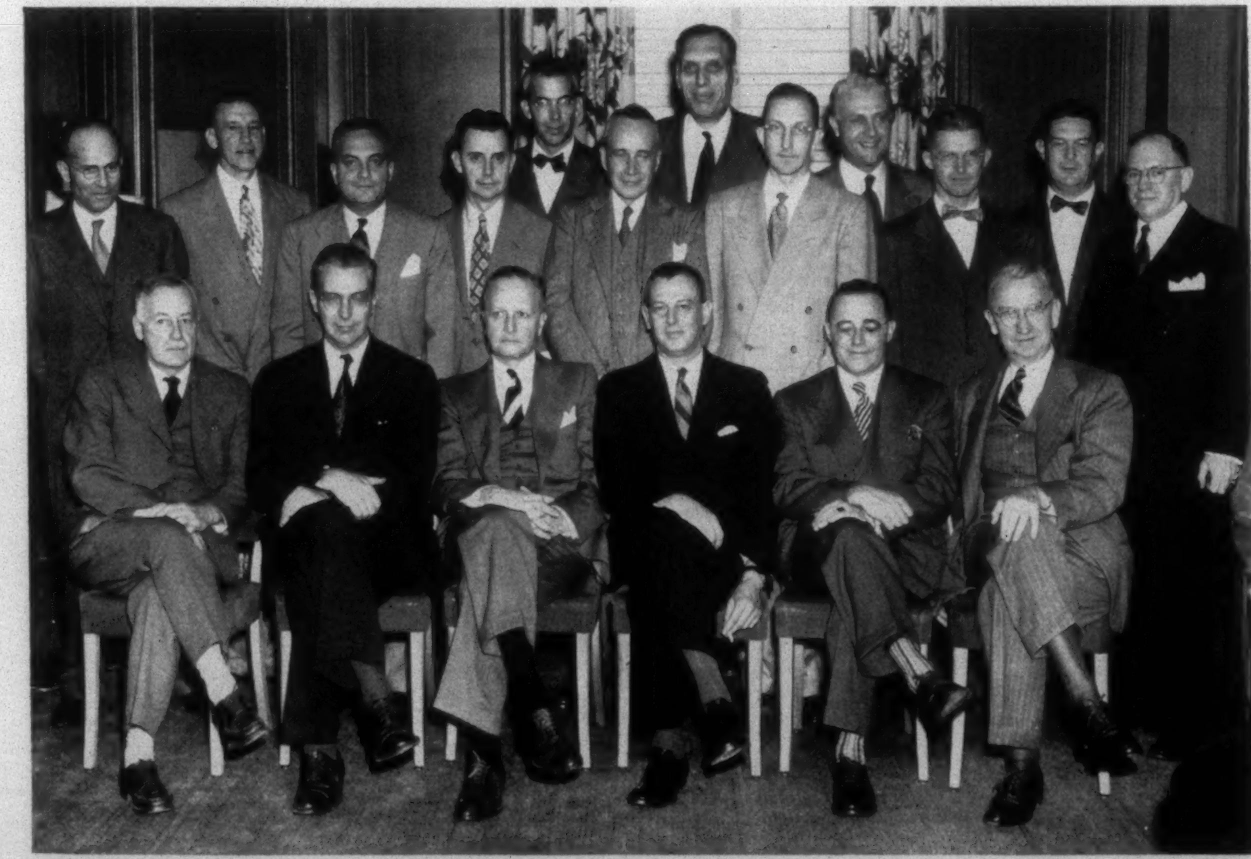
In regard to dyeing, Dr. Jennings expressed the opinion that the fastness of most dyes would be improved, although too much was not known as yet on this point. Since the treatment follows dyeing, there is little possibility of re-dyeing treated goods, it was pointed out.

Blends can be processed, it was declared, with the benefits proportional to the amount of viscose in the goods. Some of the results in acetate blends appear to indicate benefits for the acetate too, it was noted, although not much work had been done on this score yet. Worn garments had been dry cleaned five or six times with no apparent effect on the fabric, it was said, although no actual tests had been made along these lines as yet. The chemicals used are not on the government's critical list as yet, Mr. Fitzgerald stated.

Other speakers at the general session were Walter Regnery, president of Joanna (S. C.) Cotton Mills Co., Richard D. Wells of Bates Mfg. Co.; and Kenneth Fox of Burlington Mills Corp.

Though the co-operation of suppliers has been appreciated, the mills must take the initiative through their own research to direct the industry, Mr. Wells asserted. The alternative, he added, was that "we can look forward to a dismal future as that big guy with the strong back and weak mind, the victim in all his dealing, and the despair of friends and relations."

The textile industry, separated from its machinery builders, fiber producers and chemicals suppliers must be done by co-operative, group-sponsored association activities, Mr.



Officers and new trustees for the Textile Research Institute were elected at a special meeting of the trustees which was held in conjunction with the institute's 22nd annual meeting. Present at that meeting were, *seated, left to right:* Dr. H. W. Charch, director of pioneering research, rayon department, E. I. du Pont de Nemours & Co., Inc.; Dr. Donald H. Powers, director, Hudnut Research, Warner-Hudnut Co., Inc.; Kenneth Wilson, Forstmann Woolen Co., Passaic, N. J.; Andre Blumenthal, vice-president, Sidney Blumenthal & Co., Inc., and president of the institute; A. G. Ashcroft, vice-president, Alexander Smith, Inc., Yonkers, N. Y.; H. Gordon Smith, executive vice-president, United States Rubber Co.

Standing, left to right: **C. H. Masland, II, C. H. Masland & Sons, Carlisle, Pa.; C. S. Fowler, Dan River Mills, Danville, Va.; J. B. Goldberg, director of research, J. P. Stevens & Co., Inc.; Bailey Sellars, Burlington Mills Corp., Greensboro, N. C.; P. C. Alford, Jr., secretary, Textile Research Institute; Edward T. Pickard; Dr. Jules Labarthe, Jr., The Mellon Institute, Pittsburgh, Pa.; Leonard Smith, National Cotton Council, Memphis, Tenn.; Bertrand Hayward, Philadelphia Textile Institute, Philadelphia, Pa.; Dr. Thomas G. Hawley, Jr., director of research, United Merchants Laboratories, Inc.; Joseph H. Brandt, The Toni Co., Chicago; and Ephraim Freedman, bureau of standards, R. H. Macy & Co., Inc.**

Wells said. "These must have the best brains that can be mustered to the task. They must have the intelligent, long-view, sympathetic, and whole-hearted support of all affected groups," he said. "We should be able to make up our own minds as to what courses we should follow for the public's and our own best interests."

Joanna Cotton Mills produces "a better product in fewer man-hours" now because it has utilized just one tool of research, the Micronaire, Mr. Regnery reported to the meeting. "Research in this instance is paying daily dividends," he said. "This is only one example of where work accomplished can pay off to make our textile industry more competitive," he observed.

There are times when technical jargon is a handicap, Mr. Fox told the gathering. "A technical man might say, 'If we could plasticize this fiber, reduce its crystallinity and drop its modulus of elasticity, then we could obtain a unit better adapted to energy absorption at low loads.' How much simpler and more easily understood it would have been had our technical man said, 'Let's soften the fiber so it will stretch more easily.' " Industry faces a real problem today in getting technical personnel, Mr. Fox declared.

The Eighth Spinner-Breeder Conference

CHARLES C. HERTWIG, president of the American Cotton Manufacturers Institute, called on breeders Nov. 29 to exert every effort to make cotton more acceptable as a fiber in its own right and also more adaptable to diversified uses, including use in blends with the so-called "wonder" synthetics. Making the keynote address at the eighth Spinner-Breeder Conference at Clemson, S. C., Mr. Hertwig said that what was once viewed as the "competition" of synthetics might now be called the "spur" of synthetics. "No horse, under the spur, slows to a walk," he added.

Asserting that planning and research could bring a broader utilization of cotton, he continued: "If we concede that no man-made fiber can be the ideal fiber for all end-uses and if we are willing to make a similar concession that at this period of history no one variety of cotton fiber can be ideally suited for all purposes, we can more easily see the tremendous possibilities of all fibers.

"For instance, if certain strains of cotton fiber can be bred and produced that are ideally suited for certain end-uses, maybe we won't need so many 'wonder fibers' in the future—or if blending certain types of cotton with the present wonder fibers will make them 'super wonder fibers,' then that will mean expanded outlets for cotton."

Calling for intensified efforts of research looking to elimination of such problems as mildew attack, to which the new non-cellulosic fibers are resistant, Mr. Hertwig declared that "we are spinning gold today" and that "any defect in goods from high-priced cotton means heavy financial loss."

At the same time Mr. Hertwig, who is president of the Bibb Mfg. Co. in Macon, Ga., cited some of the reasons textile mills today "require best spinning qualities in order to obtain top quality production suitable for the purpose intended on each end item."

"Without a reasonable profit," he asserted, "the cotton industry cannot be expected to perform the agricultural and industrial miracles necessary to achieve the kind of production job needed to keep America strong on the home and military fronts.

"Realistic businessmen know that taxes cannot keep on rising, foreign products made by low-paid workers cannot flow into the country over lowered tariff barriers, and government costs cannot continue to mount up, if the investor is to receive a fair return.

"Depreciation allowances, if revised to keep pace with the faster tempo of the modern textile operations, would permit the retention of some of the capital needed for replacing and modernizing existing plants.

"However, it will certainly require higher earnings than at present to attract new capital for spinning and weaving mills that cost about $250 a spindle to erect, or an investment of more than $16,000 for each job in a textile plant."

The Spinner-Breeder Conference, sponsored by the Mississippi Delta Council Advisory Research Committee of Stoneville, Miss., attracted a large attendance from the cotton textile industry, cotton breeders, producers and ginners. Joint hosts for the two-day event, Nov. 29-30, were Clemson College and the South Carolina Textile Manufacturers Association.

General purpose of the conference was to spur the breeding of varieties of cotton which give the planter the best dollar return per acre and at the same time uphold the spinning and other qualities which the mills need to produce a quality product so that cotton can maintain its position in the increasingly competitive market.

Dr. J. W. Neely, geneticist of Coker's Pedigreed Seed Co., Hartsville, S. C., speaking on "Production Factors Influencing 1951 Crop Spinning Qualities," remarked that a few years ago pedigreed cotton producers said there was no incentive for them, as the gin would not do justice to their product, nor would it be recognized by the mill buyer. However, that is all changed, he said, and the ginners are doing a better job and a mutual understanding is developing between the mills and the pedigreed producers on each other's problems and on each other's needs. There is now much less buck-passing than there was, he added.

Graves Jones of Jones, Gardner & Beal, Providence, R. I., who acted as moderator of a panel discussion on fiber and spinning quality for 1951, commented after the hearing on ginning, that perhaps the ginners were not always treated fairly in recent years, that they were made the "whipping boy."

John Murphy Cook, in charge of the U.S.D.A. cotton laboratory at Clemson, with a series of charts gave the evidence of the high character of the 1951 crop. The 1951 crop produced the strongest fiber in a long time. The yarn skein strength indexes were based on 11/30 second to 13/30 second inch fiber. California didn't produce so strong a yarn from its cotton as in 1948. The Southeast produced the strongest yarn strength thus far. The central section and analysis showed that California had made big gains; that Texas was at its best in six years and that the Southeastern states had one point which was the highest since 1949.

Dr. C. R. Sayre, president of Delta Pineland Co., discussing "Producer Progress Toward Meeting Mill Demands," reminded that foreigners coming over here to buy cotton think in terms of our better grades. He reminded that the farmer does his planning in terms of maximum dollar returns, and as a result, the long staple gave way to the medium staples. In 1942, long staples counted for eight per cent of the Delta crop and in 1951 the percentage was practically infinitesimal.

Harry Defore of the cotton department at Deering, Milliken & Co., Inc., analyzed practical manufacturing experiences with the 1951 cotton crop. The performance of three mills was combined where possible to single out the effects of 1951 cotton, Mr. Defore stated.

The use of 1951-1952 crop cotton in relation to 1948-1949 crop cotton has tended to improve neps in the card web by 10½ per cent. Yarn strength has been raised about eight per cent, while cloth tensile has increased three per cent, it was pointed out. The 1951-1952 crop has reduced spinning ends by 14 per cent and cut spooler knockouts by ten per cent.

There has been no improvement, however, in roving efficiency, warper stops, weaving efficiency, percentage seconds, shorts or remnants, weaving defects or neps in the gray cloth or in cutting roving ends, he said. From experiments, hopi acala has been impressive, and it is declared that modifications bred into this variety of cotton are a step in the right direction.

Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute, made a strong appeal that government agencies give special treatment to the cotton textile industry in any of their regulation programs. He stressed that the economy of the nation, as well as its security, hinges a great deal on having nothing done that stifles or discourages the maximum production efforts of which the industry is capable.

The O.P.S. issued regulation after regulation amendment after amendment, until buyers didn't know how to buy and sellers didn't know how to sell, with the result that markets have dried up and business has been at a standstill for a long time, he said.

O.P.S. refused to recognize the claims of the industry, since proved, that it had the productive capacity and could and would meet every military and civilian need, said Mr. Jackson.

Radical Changes Forecast In Cotton Cleaning

A PREDICTION that the whole concept of cleaning cotton will be radically changed in the near future was made in Atlantic City, N. J., Nov. 30 by Paul Grant, Jr., of Whitin Machine Works, Whitinsville, Mass., in a discussion of opening and picking systems for the cotton textile industry. Mr. Grant addressed the textile session at the 72nd annual meeting of the American Society of Mechanical Engineers.

Mr. Grant said that since it was first discovered that cotton could be partially opened and cleaned by introducing it into the space between a high velocity cylinder with fingers or blades and a series of spaced bars arranged concentrically to the surface of the cylinder, "little progress has been made along scientific lines in the design of preparatory textile machinery."

He pointed out that of late the mills are demanding a better quality product from preparatory machinery because of the advance of newer and better methods of drawing, roving, spinning and weaving, because of the loss of doublings in the mills, and because of machine-picked cotton and improved ginning.

"After all," he declared, "the quality of the finished product in a mill depends on the quality and evenness of the lap that is creeled on the back of the card. Little can be done in the subsequent operations to overcome poor quality laps; consequently, it is more important than ever before that the lap be thoroughly cleaned and uniform in weight per unit of length.

"We, as a machinery manufacturer, realize that the real scientific knowledge gained by research in the past few years in the roving, spinning and weaving fields has far outstripped the preparatory machinery and left it in an untenable position. Consequently, we are now engaged in a program of intense scientific research on blending, opening, cleaning and lapping cotton.

"Our research has disclosed some astounding facts and while it is premature to disclose our findings, we feel that in the near future the whole concept of cleaning cotton will be radically changed. So far the research indicates that heavy high velocity beaters are not only unnecessary but are actually detrimental to quality processing. It also indicates that the number of machines required to clean cotton can be reduced materially and that less damage to the fiber and consequently, fewer potential neps will result.

"The scientific application of proven principles of aerodynamics, and a limited use of air streams for conveying purposes both in the machines and pipe lines will result in an improved lap of cleaner fibers with fewer potential neps to present to the cards."

Mr. Grant described a modern opening and picking room for a 50,000-spindle print cloth mill based on the Whitin system, but warned that the organization he discussed might, in the future, be considered "unwieldy, inefficient and outmoded," because of his anticipation of "imminent drastic changes in the methods of opening, cleaning, conveying and picking of cotton."

Cleaning Entirely by Air

In a discussion of opening and picking by the Aldrich system, A. P. Aldrich, Jr., partner of the Aldrich Machine Works of Greenwood, S. C., described a "radically new" machine for cleaning cotton entirely by air. The "super-jet cleaner," Mr. Aldrich said, contains no moving parts whatever but will take more motes and neps out of cotton than any single machine now available to the trade. It operates on the principle of centrifugal separation.

"Cotton leaving the fingers of the cylinder beater in a finely divided condition is picked up by an air jet from the pressure fan in the base of the super-jet cleaner, and while this lint is blown at a velocity of six to seven thousand feet per minute against the reverse turn in the flue, where an adjustable cleaning slot is provided," Mr. Aldrich explained.

"While the pressure fan tends to blow everything out of this slot, the suction fan attached to the condenser of the super-jet cleaner develops a counter pressure at the cleaning slot sufficient to prevent the lint from blowing out of this slot, while anything heavier than the lint can pass out of it."

He said the cotton leaving the cleaner is "remarkably loose and fluffy." The efficiency of this cleaner is proportional to the thoroughness with which the cotton has been opened and presented to the air jet with the foreign matter separate from the lint.

"If perfect separation of lint and foreign matter could be possible," he said, "the super-jet cleaner would take out all of the foreign matter heavier than lint. Since such perfect opening and separation of lint and foreign matter is impossible, we try to present the lint to the super-jet cleaner in as well opened a condition as is practicable, and with this machine we extract a very large quantity of motes and neppy masses which would otherwise greatly increase the nep count in the card web."

Mr. Aldrich pointed out that while the "super-jet cleaner," is the most efficient mote remover he knows about, it is not highly effective in the removal of leaf trash since such leaf trash is so little heavier than the lint itself, that it is difficult to separate it centrifugally.

R. S. Curley of Saco-Lowell Shops, Biddeford, Me., told those in attendance at the A.S.M.E. textile session that better laps are being provided because of new developments in cotton opening and picking machinery. Considering Saco-Lowell opening and picking for a 50,000-spindle print cloth mill, M. Curley stated that such a plant, using 40 per cent 30s yarn for the warp and 60 per cent 40s for the filling, would require an opening and picker room to handle 1,200 pounds of stock per hour.

"We recommend that the opening and cleaning line include two No. 12 lattice openers equipped with No. 11 condensers following the vertical opener," Mr. Curley continued. "From the second lattice opener, the cotton is delivered through a N. 11 condenser to an overflow box placed at the end of a rake distributor for two pickers."

Then the cotton is drawn to a No. 11 condenser over distributor. This distributor delivers to the control feed chutes on the breaker sections of the 2-2B one-process pickers with blending reserve, No. 7 evener with fringe roll, universal grid bars, and calenders with electric controls which operate to start and stop the feed mechanism of the overflow box.

"With the movement of stock by air through the opening room, the importance of having the right filters in the right place cannot be overemphasized," Mr. Curley said. "The pickers are equipped with No. 5 automatic air filters which re-circulate the air from the picker fans and keep the air supply in the picker room constant.

"The first beater is preferably a two-blade beater running 1,150 r.p.m. The blending reserve, equipped with six arm beaters at 275 r.p.m. beats the cotton over a set of grids through which no air is drawn.

"The cotton is delivered by the beater to the reserve chamber at the bottom of which are two fluted rolls which feed to the evener. The evener is the latest model equipped with a patented fringe roll, a recent development. Without the fringe roll, every lap shows a smooth top and a rough or lumpy under side," Mr. Curley added.

The newly developed universal grid bars are used under the picker beaters because of the increasing amount of seed coatings and immature seeds with fiber attached which is occurring in the bales, he observed. These bars are so arranged that they can be adjusted to or away from the beater as a set and each bar can be set separately from the others for best setting.

An air cylinder replaces the old brake and pulley friction. When the lap is started, the racks are brought into contact with the lap roll and they apply full pressure between the lap roll and the calender at the start of the lap.

Therefore, Mr. Curley observed, the draft between the nine-inch rolls and the seven-inch rolls is effective in the first yard as well as in the remaining portion of the lap and weight throughout is approximately uniform.

Fred D. Snyder, application engineer of Westinghouse

THE 1851-1951 CENTENNIAL ANNIVERSARY OF THE EAGLE & PHENIX DIVISION OF REEVES BROS., INC., was noted in celebrations Nov. 23 and 24 at Columbus, Ga. Pictured above *(left to right)* are: T. B. Buck, Jr., president of the Columbus Chamber of Commerce; Admiral Richard E. Byrd, a director of Reeves Bros.; John M. Reeves, president of the company; and Frank B. Bradley, vice-president and general manager of the Eagle & Phenix Division.

In the other view Mr. Reeves presents savings bonds to three employees with more than 50 years of service at Eagle & Phenix. *Left to right:* Joseph W. King, general office, 51 years; Mr. Reeves; Lonnie Tillery, maintenance, 55 years; and John Watkins, manufacturing, 56 years.

Electric Corp., Boston, Mass., was elected chairman of the textile division, American Society of Mechanical Engineers. Mr. Snyder succeeds R. O. Palmer of Carlyle Johnson Machine Co., Shrewsbury, Mass. Mr. Snyder and other new officers of the division will serve for two years. New vice-chairman is Lindsay Dexter, Pepperell Mfg. Co., Boston, who moved up from secretary. Robert M. Jones of Saco-Lowell Shops, Biddeford, Me., succeeds Mr. Dexter as secretary. Leslie M. Runton of M. T. Stevens & Sons, division of J. P. Stevens & Co., North Andover, Mass., was elected treasurer.

Charlotte Gets Big Celanese Office Building

A large modern office building is to be erected one-half mile outside Charlotte, N. C., which, when completed, will be leased to Celanese Corp. of America. The proposed building should be a definite contribution to efficiency of operations of the corporation and result in a reduction of costs, it was said. The company now has 11 plants in the South and Southwest and all of these can be more economically serviced through an office in this locality.

The building, which will provide 200,000 square feet of space, will be erected by C. M. Guest & Sons of Greensboro, N. C., on a site formerly a part of the Morrocroft farm. Purchase of the land was made by the builders who will make all improvements to the property and sell the finished structure to the Jefferson Standard Life Insurance Co., also of Greensboro, for long-term lease to Celanese Corp. of America.

Construction will get under way as rapidly as government restrictions permit; but it is unlikely that the project can be completed before 18 to 24 months. Office facilities for about 700 persons will be provided.

The structure will be of conventional design by Biberstein, Bowles & Meacham, Inc., architects and engineers of Charlotte, with the central portion five stories high and wings from one to four stories in height. The building will be air conditioned and acoustically treated.

State and local representatives who have worked on the project are enthusiastic over the decision of Celanese Corp. of America to locate in North Carolina after a study of numerous sites in many states. Among the factors receiving consideration in the choice were the progressiveness of the state, co-operation received from state and local sources, and the strategic location of Charlotte with regard to communications and distribution facilities.

Rap Unfair Competition From Puerto Rico

John K. Cauthen of Columbia, S. C., executive vice-president of the South Carolina Textile Manufacturers Association, in a recent news statement charged that Puerto Rico is providing unfair outside competition for the American textile industry. He cited a new wage order of the Puerto Rican government, raising the minimum pay for textile workers from 30 to 35 cents an hour.

"This is the kind of labor competition the American workers face," Mr. Cauthen said. "In addition, the Puerto Rican government exempts new industries from all taxes and will finance new plants and machinery at an interest rate of only two per cent—all of this at a time when the American government is holding up permits for materials to build new textile plants in South Carolina."

Mr. Cauthen added that this country puts no tariffs on textile imports from Puerto Rico. This means, he declared, "that our textile plants and workers are going to have to meet competition from 35-cent labor, tax-free, duty-free, government financed industries in Puerto Rico. It doesn't make sense."

W. E. Prescott Heads Purchasing Agents

W. E. Prescott, purchasing agent for Kendall Mills, Charlotte, N. C., a division of the Kendall Co., was elected president of the Carolinas-Virginia Purchasing Agents Association at the 32nd annual meeting of the group Nov. 30-Dec. 1 at Pinehurst, N. C. Mr. Prescott succeeds C. L. Wyrick of Greensboro, N. C., director of purchases for Dillard Paper Co.

Approximately one-third of the association's membership, which numbers about 200, is associated with the textile industry. Of particular interest to this group was discussions by a forum panel of the supply and price situation on fuel, mill supplies, paper and containers, and textiles.

A paper on "Inventories—Are They Too Big?", prepared by John M. Geer of Fieldcrest Mills, Spray, N. C., was read for him in his absence. An additional talk was given by George L. Brown, purchasing agent, F. C. Huyck & Sons, Kenwood Mills, Rensselaer, N. Y.

Other officers of the association, in addition to Mr. Prescott, are J. A. Long, Jr., treasurer of Roxboro (N. C.) Cotton Mills, vice-president; L. B. Whitehouse, Jr., vice-president and purchasing agent of Norton Mfg. Corp., Lynchburg, Va., secretary-treasurer; W. L. Wyrick, Greensboro, national director, with Mr. Prescott as his alternate. Named directors for three years were Fletcher Jordan, Jr., purchasing agent, Union Bleachery, Greenville, S. C., and James M. Berry of Vick Chemical Co., Greensboro.

The group will hold its next meeting March 21-22 at Greenville, S. C.

Magazine Cites South's Industrial Growth

The rapid industrialization of the South during the past few years is given prominent attention in the Dec. 10 issue of *Time,* the weekly newsmagazine. And, as to be expected in dealing with such a subject, the textile industry is given major consideration in the article. *Time* editors seemed particularly impressed with impact upon citizens of the Camden, S. C., area on construction of the multi-million dollar Du Pont plant for production of Orlon acrylic fiber.

The *Time* article is concluded with this statement: "Industrialization and relative prosperity is stemming the tide of Southerners moving North. Southern college graduates are staying home. Scientific research and executive management will inevitably fall into the hands of young Southerners.

"The South's new industry is there to stay. If the U. S. economy continues to expand, the South will stay in the forefront of the parade. If the national economy deflates, the South's new factories will be among the last to sag, because they are among the newest and most efficient in the nation."

SERVING THE TEXTILE INDUSTRY SINCE 1899

Improved

PACKAGE DYEING

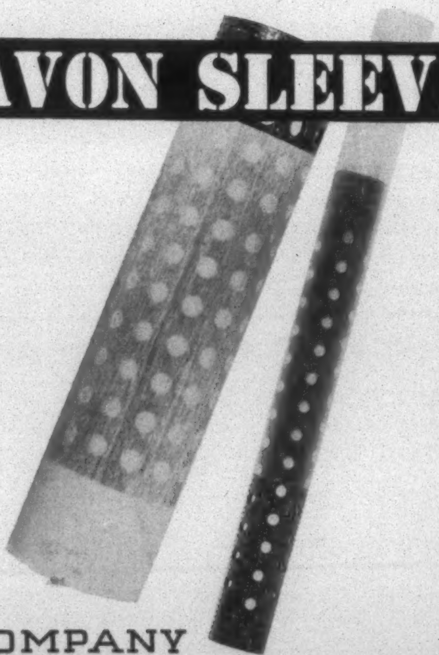
with

SONOCO

DYTEX® TUBE

For one time use only—the Sonoco Dytex Tube is a proven yarn carrier for all standard forms of package dyeing. Standard sizes ⅝" I. D. × 6¾" long and 1⅝" I. D. in varying lengths. Special sizes available.

PLASTAVON SLEEVE



A filter sleeve that also acts as an aid to more even dye distribution next to the tube, better control of "flow" throughout the entire package of yarn, reduced slippage in primary winding.

SONOCO
SERVES THE WORLD
PAPER CARRIERS
REG. U.S. PAT. OFF.

SONOCO PRODUCTS COMPANY

BRANTFORD ONT.
HARTSVILLE S. C.
MYSTIC CONN.

DEPENDABLE SOURCE OF SUPPLY

THE MILL OF TODAY

By ROBERT Z. WALKER

Part 28 – The Flyer Must Be Right!

AT VARIOUS points throughout a spinning mill there are certain basic sub-assemblies which must be mechanically perfect if the ultimate in strong, even yarn is to be spun. Among such items are the evener motion on the picker, the comb box on the card, the tension and calender roll drive on the drawing frame, and the flyer assembly on the roving frame. Assuming that high quality sliver from the finisher drawing frame has been brought to the roving frame, and has been drafted through the drafting element on the frame without a loss of character, it is reasonable to expect to be able to creel in excellent roving at the spinning frame, as long as the roving can be wound on to the roving bobbin safely. However, if for any reason, the weak strand of roving is stretched or damaged during the time it passes from the nip of the front rolls to its place on the roving bobbin, then all of the care and expense involved in excellent preparation has become wasted. There are a number of reasons why the roving bobbin may not be perfectly formed and why the roving may become stretched or broken; most of these sources conceivably responsible for the production of low quality sliver will be discussed in this series. The first of these sources to be discussed is the flyer.

The flyer has been selected as the first point to examine because it is the part of the roving frame which actually comes into contact with the roving, and which actually places the roving on to the bobbin. The remainder of the roving frame, except for the drafting element, is principally concerned with being co-ordinated with the flyer so that the final result will be a perfectly formed bobbin made up of roving having the proper amount of twist, evenness, and strength. The cones and compound serve only to control and regulate the bobbin speed to maintain even and moderate tension on the roving as it is built up on the bobbin by the flyer. The flyer speed is co-ordinated with the front roll speed to obtain the desired amount of twist to impart strength to the roving, with the flyer speed remaining constant and the front roll speed changed by altering the twist change gear. With the remainder of the frame acting to serve in support of the flyer, and with the flyer actually touching the roving, it is understandable why the flyer itself should be closely inspected to prevent it causing poor work.

The flyer is a precision instrument, machined to close tolerances, highly polished and accurately adjusted and balanced. Whenever the flyer is damaged or neglected so that the polish is lost or the shape and balance is imperfect, then the roving made on that flyer will show a marked deterioration. Flyers should be carefully checked for wear, balance, and shape during the annual overhaul of the frame, but the reconditioning and balancing of the damaged ones should be left to a competent concern and not attempted at the mill.

The balance of a flyer is much more delicate than usually realized. First, there is the subordinate balance of the presser, which cannot really be considered a balance in the true sense of the word but is more of a carefully predetermined relationship between the presser paddle and the upright presser rod. The presser is composed of two main parts; the presser paddle and the upright presser rod, or balance rod. This assembly is mounted on the hollow leg of the flyer and supported at the bottom and at a point well upon the leg, in such a manner that the unit can swing freely in an arc with the hollow leg as a center.

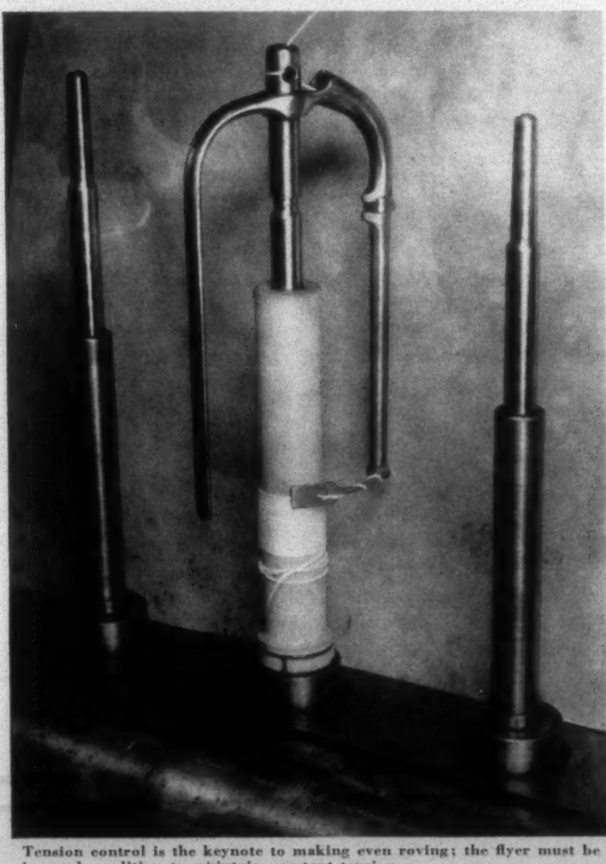
As the presser paddle and the balance rod are in one piece, any movement of the balance rod is transmitted to the paddle, and vice versa. The paddle receives the roving as it emerges from the hollow arm, and guides the strand on to the bobbin; the balance rod forces the paddle against the stock on the bobbin and maintains more or less even pressure. If it were not for the balance rod, the paddle would be thrown away from the bobbin by centrifugal force created as the entire flyer revolves. The balance rod prevents this because it is heavier than the paddle and because it revolves on a path at a further distance from the axis of the flyer. In other words, the balance rod holds the presser paddle in against the bobbin because its greater weight and longer leverage combine to set up a centrifugal force which will overcome the centrifugal force of the paddle. As the paddle and the balance rod are of a single piece, pivoted at a point between the ends, the stronger movement of the balance rod controls the paddle.

The paddle and the balance rod are in perfect balance, that is, true balance, only at one point in the building of the bobbin. This point is approximately when the bobbin is half full. When the bobbin is empty, at the start of the doff, the presser paddle is permitted to move in close to the center of the circle so that the balance rod is at its outermost position and exerting its greatest pressure. The effect is to press the paddle more firmly against the bobbin and therefore to wind the roving more compactly. As the bobbin fills, the diameter of the roving bobbin increases and forces the paddle outwards, causing the balance rod to swing in closer and to move in a smaller circle. The smaller circle reduces the leverage and centrifugal force of the paddle and so reduces the force applied against the paddle. This condition is continuously changing as the diameter of the bobbin increases. The pressure on the paddle is at its lowest when the bobbin is full and ready to be doffed.

On the other hand, the paddle has a centrifugal force which is opposing the force of the balance rod. As the balance rod travels in a smaller circle when the bobbin fills, its centrifugal force becomes less, at the same time the centrifugal force of the paddle becomes correspondingly greater as it is moving in a larger circle. The formula for calculating these forces is as follows: "The centrifugal force generated by a weight in motion about the center of a circle varies as the velocity squared and as the radius of the circle." As the velocity of the balance rod and the paddle as a whole is constant, the only variable is the change in the radius of the circles of their movement.

While the paddle and the balance rod are therefore not truly in balance, the relationship between the two is very definitely closely controlled and must be maintained within close limits. If the weight of the balance rod is inadequate, then the paddle will generate sufficient centrifugal force to overcome opposing forces during the last part of building the bobbin, and will fly away from the side of the bobbin. Such a condition would result in tangled roving or a broken end. If the balance rod is too heavy, then the paddle will be forced into the side of the bobbin too strongly and will cause the end to break down.

Deformed flyers with bent pressers, or pressers which are binding on the hollow leg of the flyer, will not maintain a designated pressure on the roving bobbin. Variances in tension, from this source, on the roving at different spindles along the same frame cannot be corrected by adjustment of the cone belt or other tension control members of the frame itself. Until the pressers are correctly gauged and re-set, there is a very definite possibility that the roving from some of the spindles will show a high degree of linear irregularities regardless of the care taken in using even sliver and drafting it under perfect conditions.



Tension control is the keynote to making even roving; the flyer must be in good condition to maintain constant tension.

The presser paddle is designed with a certain curvature so that it will fit the roving bobbin with the proper arc of contact. This curvature is often altered in the mill through either accidental damage or intentional abuse. A more or less common practice has been for operators to spread the legs of the flyer in order to obtain more roving on the bobbin so as to increase the time between doffing periods. Any change in the curvature of the paddle, and this would be altered by spreading the legs of the flyer, will cause bobbin runovers and tangled roving.

There are a few mills which have successfully altered the presser to length of the stroke or the maximum length of the bobbin. The alteration is simple and consists merely of bending the paddle down slightly. On most roving frames the spindle is made just long enough so that when the paddle is winding the roving at the bottom of the bobbin, there is very little clearance between the top of the bobbin and the flyer. If the stroke is lengthened without this alteration, the longer bobbin which must be used may lift the flyer off the spindle when the bolster rail is at the top of the traverse on empty bobbins at the start of the doff, which is the point of the longest traverse. Bending the paddle down forces the fixer to set the bobbin carriage lower so that it will wind the roving on the bottom of the bobbin. This will then leave enough clearance at the top so that the bobbin will not lift the flyer. The total increase in bobbin length will be double the distance that the paddle is bent downward, and may result in a total increase of one-half inch in maximum stroke, without encountering serious difficulties either in disturbing the control of the presser or in adjusting the builder of the roving frame.

The presser may be reformed in the mill by using small portable jigs. These repair units will permit a mechanic to re-shape the curvature of the presser, bring the paddle of the presser parallel to the axis of the flyer, and set to the correct fit on the flyer leg. However, there are some types of wear which cannot be remedied in the average mill repair shop. On the presser there will be wear at the points where the presser fits the hollow leg of the flyer. After prolonged use the lug ring of the presser, or the tip of the hollow leg will become so badly worn that the presser will move erratically or irregularly, and will destroy the even tension of the winding. The properly equipped machine shop, specializing in this type of work, will examine the flyers and determine exactly what steps are required for each individual flyer. If the upper lug for the presser rod is worn, a new lug will be brazed on to the hollow leg. If the tip of the hollow leg is worn at the point that the presser is secured, then the tip will be completely cut off and a new tip welded on. The presser itself will be reformed and re-balanced and re-polished to remove all marks and rough cuts resulting from the abrasion of the roving. At the conclusion of this work, the flyer presser and its contacting units will be in perfect condition and ready for many more years of trouble-free service.

Flyer balance is a matter of extreme importance in the interest of making good roving and in maintaining a high degree of mechanical porformance of the frame. The two legs of the flyer, the hollow leg carrying the roving, and the solid balance leg, must be positioned so they will be in perfect balance. They must also be approximately parallel to fit the size of the package. A common source of flyer damage

LONGER LIFE-LESS OILING

WHEN TOP ROLLS ARE "Flow-Steel" RECONDITIONED

Important mill savings start *immediately* when you install top rolls conditioned by Ideal Machine Shops' exclusive "Flow Steel" method.

LESS OILING—Oil-retaining metal, built into all bearing parts, eliminates the necessity of daily or weekly oilings. Oil penetrates and is "stored," rather than remaining on the surface to be taken up and wasted by gathering lint. Oiling once a month is generally sufficient.

CLEANER YARN—By eliminating surface oil, "Flow-Steel" treated top rolls cut out dripping and splattering. Oil stays *in* the bearing parts, and *off* the yarn. Seconds due to oil-spotting are negligible.

LONGER LIFE—This extra oiling efficiency reduces wear on rolls, cap bars, and saddles. Wear resistance is also greatly increased by the cushioning action of "Flow-Steel" soft metal against cast iron at bearing spots. Ends and middles are rebuilt to exact dimensions, absolutely true to assure smooth, even operation.

Compare "Flow-Steel" reconditioned top rolls with any others, and be convinced of your savings.

OIL-IN-METAL

Special oil-retaining metal on bearing parts actually soaks up oil, and "stores" it for greatest oiling efficiency.

IDEAL MACHINE SHOPS, INC.

Phones 4161 and 4391

BESSEMER CITY, NORTH CAROLINA

27TH YEAR OF CONTINUOUS SERVICE TO TEXTILE MILLS

and trouble is in having the flyer legs bent outward by the operator, as this permits the bobbin diameter to be increased, and therefore, increases the doffing interval. The legs may also be spread because of rough handling when the flyers are removed from the spindle when doffing. Legs are sometimes bent inward by accidents such as dropping the flyer on the floor or allowing it to strike an obstruction while the frame is in operation. In the old days, when flyers were made of softer steel, the centrifugal force created by the higher spindle speeds sometimes caused the legs to spread. Flyers which are out-of-balance set up a vibration when running which will stretch the roving and ruin its evenness. They will also cause excessive wear of the spindles and bolsters because of the pounding effect of the vibration. In fact, the vibration will be transmitted throughout the entire carriage and will increase the wear of all of the moving parts, in addition to increasing the power consumption of the frame and the number of ends down. Flyers should be balanced by an expert to assure obtaining a truce balance, and should be balanced at operating speeds.

In addition to flyer balance and balance of the presser, there are other points of wear on the flyer which may effect the quality of the roving. The let-on is that part of the flyer which fits on to the spindle and which has as its upper part the nose receiving the roving. The inside of the let-on is machined so that its internal taper is identical with the taper of the spindle tip. When the flyer is new the close fit of the let-on to the spindle receives some of the force required to move the flyer, and relieves part of the load which would otherwise be thrown on to the key. In time, the close fit is lost due to abuse in doffing and wear, and the clearance is so large that the flyer must be driven entirely through the key. When the let-on fits loosely, the flyers will not all seat at the same height on the spindles, and the bobbins will not all be of perfect build. A flyer with a worn let-on will soon wear down the driving key, and in time the slot in the top of the spindle will also become worn. This wear of the driving members will result in the flyer running with a jerky motion instead of a smooth even movement, and will cause uneven roving.

In reconditioning a flyer, the fit of the let-on is again brought to original dimensions to conform with the spindle taper. The old key, if worn, should be knocked out and a new one inserted. This type of operation requires special equipment and skilled mechanics to assure placing the new key in the proper position for the particular flyer size being reworked.

The main point to remember about a flyer is that it is actually a complex piece of machinery built to exacting specifications, but appearing very simple. For this reason, it is very apt to be abused and allowed to operate long after reconditioning is required. The nose of the flyer is an example of a simple section which must be built to very close tolerances. For a number of years, there have been various discussions as to the proper size of the hole in the top of the nose. This hole receives the roving as it comes from the drafting rolls of the frame; it contacts the strand while it is still being twisted due to the action of the flyer, and therefore, the strand is relatively weak and susceptible to damage. Flyers seem to have been made with two sizes of holes in the nose. The large hole is easier to clean, and to keep clean, but there is somewhat more motion or vibration of the strand of roving. The flyers with the small hole are harder to keep clean and are also more difficult and slower to thread up, particularly when synthetic fibers are being processed. The main point of contention has been whether or not the vibration of the strand is beneficial or not. Many mills and technicians who at one time ran mule spinning have contended that the vibration imparted to the strand as the thread slipped over the end of the spindle during the twisting cycle greatly improved the quality of the yarn, therefore, the vibration of the roving aided in evening out the twist and improved the evenness of the roving. Probably the vibration is of not too much importance as long as there is not too much tension. Tension control, and particularly the prevention of too much tension, is the real keynote to making good roving.

Gauge and jig, designed for mill use, may be employed to correctly reshape pressers.

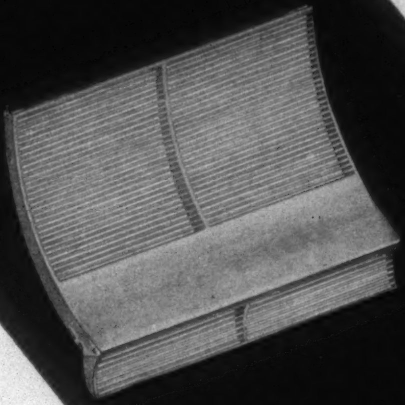
The nose of the flyer definitely affects the tension of the strand. It the nose is rough or rusty, the strand will not pass through smoothly but will cause surges of varying tensions on the strand. Also, if the nose is not highly polished, fibers will collect within the nose and will plug up the hole, and cause increased tension. The snub of the roving around the outside of the nose makes it necessary to keep that portion of the flyer highly polished if the tension is to be controlled. Therefore, when the flyers are overhauled, the nose of the flyer should be brought to a high polish, both inside and out.

The final section of the flyer to be checked is the hollow leg, with particular emphasis placed upon gauging with the slot and the polish of the interior. The problem in gauging the slot is that the width must be fitted to the size of the hank of roving being made. If the slot is too wide, the roving will be thrown out of the hollow leg by centrifugal force and will cause frame stoppages, while, if the slot is too narrow, piecing up the ends will be too difficult. Here again, the mill should be cautioned against trying to change this slot width in the mill workshop. Generally, when this adjustment is attempted by other than experts, the edges of the slot will become scarred, or the width will not be uniform, and therefore, will catch and retain fibers causing frequent plugging and ends down.

The polishing of the inside of the hollow leg is also a task which should be left to the experienced workman with the proper tools. The hollow leg must have a high polish to prevent fibers from accumulating within it. When this inside surface becomes rough or rusty, the leg must be opened wide, the interior again polished, and then the leg must be closed until the width of the slot is even for the entire length of the leg.

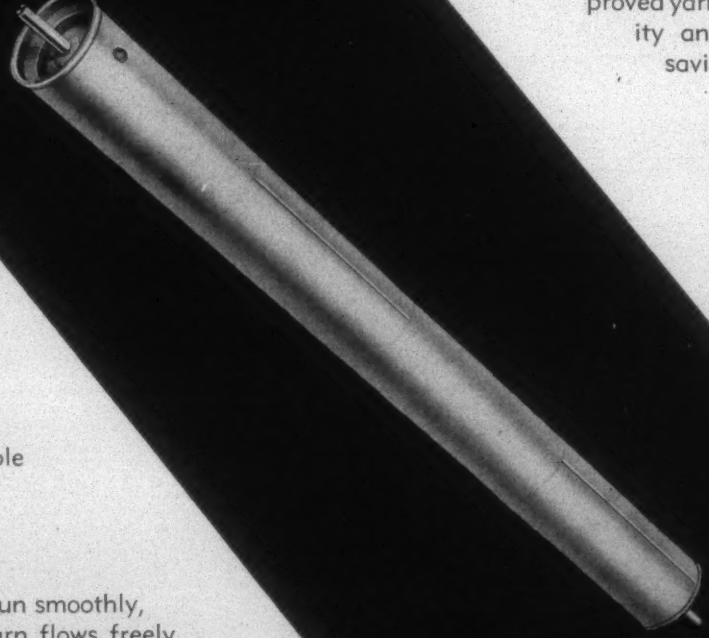
Finally, the entire flyer should be polished so as to prevent fly and lint from building up on it. Dirty flyers with

ENGINEERED Products Pay-Off ON THE JOB!



Metal products that "look just as good" may be a poor bargain!

Jenkins invites you to make the only test that really counts—try Jenkins engineered spinning cylinders and card screens under actual running conditions. You'll quickly see how their operating perfection—the result of scientific design and superior construction — pays off in improved yarn quality and mill savings.



PERFECT SCREEN SETTING PAYS!

Jenkins card screens are absolutely uniform in every part, with a patented grid bar feature that permits close, balanced setting to card cylinder. By eliminating excessive fly waste, Jenkins screens save valuable good-staple cotton.

SMOOTHER CYLINDER OPERATION PAYS!

Jenkins Dynamically Balanced cylinders run smoothly, steadily, without a trace of vibration. Yarn flows freely and smoothly at all speeds. Excessive wear on spindles, bolsters, gears, bearings, journals, and other parts is eliminated. You get increased production, improved quality at lower cost.

JENKINS

ENGINEERED PRODUCTS

Let a Jenkins representative show you how these superior metal products pay for themselves in finer performance!

JENKINS METAL SHOPS
Gastonia, North Carolina

bunches of fibers can become a prolific source of slubs and thick places in the roving and yarn because the clumps of fly will be periodically released and carried into the good roving. It is recommended that flyers be repolished and then given a surface treatment, similarly to gun blueing, to resist the formation of rust later on.

The flyer is an important part of the roving frame and has a vital bearing upon the quality of the roving made. It is one of the few parts of the frame which comes in actual contact with the strand of roving. It is handled more frequently by the operator than any other part of the frame. Therefore, it should be given the care and attention it deserves. It should be remembered that flyer repair and reconditioning is a special art requiring specialized skills and equipment, and should be delegated to those concerns having these services available.

Textile Mills In Belgium And Germany

By JOHN F. BOGDAN, Assistant Research Director

North Carolina State College School of Textiles, Raleigh

THE job I had to do with the Belgium Spinning and Weaving Association took me from March until June—three months. Then I took a short vacation and went back again in July to study the spinning and weaving industry in Germany. In that length of time, you know, you do not have much more time than to run down through the alleys and keep your eyes cocked and try to take in what you see. At the same time, those mills are so different from ours that it is remarkable how much you can pick up in the three or four days you spend in doing a quick survey. The mills in general are much smaller than ours. Too, they are divided into spinning mills and weaving mills; you do not see the integrated set-ups that are so prevalent in our country.

To take up Belgium first, in chronological order, you see plainly that there is a lack of something which they call "dollars" over there. But they are behind the eight ball so far as buying certain of our American machines is concerned. They would like to have our preparatory machinery, but they just cannot afford it today.

They told me they had read in the textile papers about our end breakage—35 breaks per 1,000 spindle hours, and they asked if such a thing is possible. I told them that of course it is possible, that we do it every day, and that I could tell them how to do it. I told them to reduce the speed a few turns and see how much better spinning they would get. They say they cannot do it, that they have to get out so many pounds per spindle and that is the thing they are paying for. They say, in effect, what do we care whether one spinner runs two frames or runs four? They will put up with bad running as long as they can keep their machines hopping at the highest production rates they can get. I asked them why not run 22,000 instead of 1,100, but they convinced me there was some reason for not doing that.

They are still using in Belgium and Germany bale breakers to try to blend their stock. When you consider that each of them is importing cotton from 31 different countries, not blending them all in one mix but blending plenty to try to get a good run, you see the problem they have. They use blooming bins and try to get the opening there. A few of the mills have recognized the need of using blending feeders, because they realize the necessity of getting a good blend. They are now getting about 50 per cent of their cotton from the United States. They would like to get 100 per cent of it from us, because it is better and also cheaper. Countries like Turkey charge 85 cents per pound for cotton that is inferior in grade and staple to ours. The reason they buy it is because they can get it with their own money and do not have to spend dollars for it.

The use of blending feeders is one of the things that should be studied over there and taken into account. Another is the carding and the card clothing. A lot of it is damaged, some of it due to the war and some of it due to neglect—lack of adequate machine maintenance. The Germans are much better at taking care of machinery than the Belgians. Their cards, of course, are similar to ours. Many of them are English. Some of the Swiss machine manufacturers, too, have their products in the mills there.

In drawing they are practically all using the nine-inch can. Some of them are converting their old drawing to take the 12-inch can; but there, again, the matter of whether it is profitable to convert or not depends on the wage scale, and it may be the saving achieved by the large package can be repaid in time.

The roving operations are still the three-roll system, slubber, intermediate, and so on, depending on how fine numbers they are spinning; but the average count for both Belgium and Germany is about 20s. They do not try to make fine yarns; they just try to get the pounds out. The introduction of some of our long-draft controlled roving systems would help in their spinning plant organization. There, again, we saw a few but not really enough.

In the spinning, for some reason, in both countries they are using the long-draft spinning. Some of that started over there and that was the place where they invested before the war. The system generally used is LeBlanc Roth single-apron system.

As far as machinery maintenance is concerned, I said I thought the people in Germany are doing a better job than the people in Belgium. That is remarkable, considering how some people got mad with Germany a few years ago and tore the place up. That shows what those people have been able to do in six years. In one place, in Duren, I was told that 15,000 out of 25,000 were killed one afternoon. In addition to that, they were caught in the cross-fire between the Germans and the Allies a few days later. All that was left of the mills there was a pile of machinery which, of course, was out in the open for some months. Those people took the gears and sandblasted them, saved all the parts they possibly could and put them together, and

Built on Customer Confidence

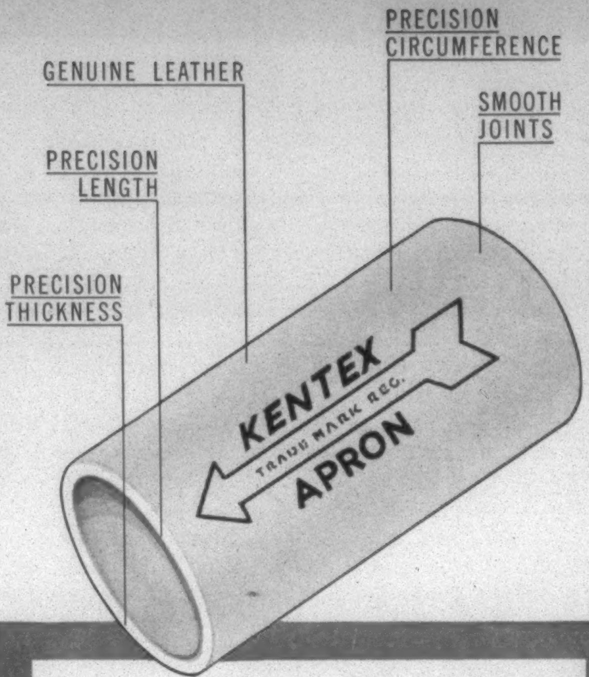
It takes more than men and machines and technical knowledge to produce a traveler that consistently meets the highest quality standards. It takes an appreciation of our customers' needs, plus a sense of responsibility in our contribution to his continued growth and success.

That is why down through the years
the home of
Carter Travelers
has become known as
HEADQUARTERS
FOR SERVICE

CARTER TRAVELER COMPANY
DIVISION OF
A. B. CARTER, INC.
GASTONIA N. C.

REPRESENTATIVES

R. A. Haynes, Special Representative,	114 W. Fifth Ave., Gastonia, N. C.
W. L. Rankin	501 S. Chester St., Gastonia, N. C.
P. L. Piercy	128 Hudson St., Spartanburg, S. C.
J. R. Richie	3014 Lewis Farm Road, Raleigh, N. C.
J. W. Brown	P. O. Box No. 560, LaGrange, Ga.
J. K. Davis	P. O. Box No. 129, Auburn, Ala.
R. D. Hughes Sales Co.	2201 Cedar Springs, Dallas 1, Tex.
Hugh Williams & Co.	47 Colborne St., Toronto 1, Canada



KENTEX Aprons have demonstrated their ability to wear longer—fit better on hundreds of long-draft installations.

The extra wear you get from KENTEX Aprons is due to the quality of the bark-tanned or chrome leather they are made of... plus precision-gauging for thickness, width, length and circumference . . . plus the fact that they are custom-built (like tailor made clothes) to fit your exact requirements.

Send us your size, and we'll be glad to send you prices and free samples.

TEXTILE APRON COMPANY
EAST POINT, GEORGIA
J. B. KENNINGTON, OWNER

Hugh Williams & Company—Toronto, Canada—Canadian Representatives

bought new rolls and new spindles; and today, just about 4½ years after they started, they have a mill running there which is one of the best—which we saw in Germany. To me it was remarkable that you could take a pile of stuff which was twisted—and we saw some that still remained and saw pictures of the mill at the time they started—it was remarkable that you could do what those people had done by hard work.

The same thing is true in probably 14 out of the 16 mills we visited. They were not all leveled to the ground, but many of them were bombed and parts of them ruined. The machinery was reconstructed and is running today—perhaps not as well as a new machine; you could not hope for that, but they are certainly running at high spindle speeds on their spinning and roving and producing a product which is pretty good considering the stuff they have to work with.

The people in Belgium were on the right side, and the people in Germany were on the wrong side, but you could mix those mills together and you would not see any difference in the blend, between the mixture and the individual mills of the countries. They are both way behind ours. The question they all ask is, "How can we produce like an American mill?" Well, there are a number of reasons why they cannot do it and probably never will be able to do it, though there are certain things they can do to take steps in the right direction. One of them is through things such as this meeting in which we are participating this morning—the exchange of technical information. Neither the mill people in Germany nor the mill people elsewhere in Europe will permit men from other mills to come into their plants. They would like very much, of course, to go and see the other man's plant, but they do not care to let him come into their mill. The reason for that is rather hard to figure. There is not a darned thing in there which is secret or that I thought I might like to take back with me, but they all feel they have some little thing in there which is theirs exclusively and which the other man does not have. In other words, if they would just go around and visit a little bit they could probably solve their own problems without having a college professor go over there and point them out. The exchange of information is a psychological matter; maybe that is what makes our textile industry what it is, and maybe the lack of it is what keeps theirs behind and always will. One man does not have all the answers to anything, and you cannot get everything by reading the trade papers. It takes the exchange of information in meetings like this.

The people in both countries treated us extremely well. In Germany they are all our friends now; and except for the uniformed men on the streets there and some of the bombed-out buildings which have not been repaired—and there are surprisingly few of them, because there is a great construction program under way in Germany—except for those things you would not know that we had torn that country up, unless you look at the backs of some of these things.

The cotton situation is one of the things they are looking at with a little bit of anticipation and hope. They are thinking maybe they will be able to get more than 50 per cent of their needs from the United States. That does not depend on us, of course, but on the Export Import Bank and the folks in Washington. But if the Germans were able to buy more American cotton at the price at which they do buy American cotton, then their economic picture would certainly change for the better. That would bring down the price of some of these so-called exalted cottons which come in from Turkey and Afghanistan and Africa and other places. The price of Turkish cotton has dropped this year. If that comes about, then the people over there will be able to buy the clothes they need. It is rather tough, when you are making 40 cents a week, to pay $3.50 for a cotton shirt. I do not know how the people manage, because they do seem to be neatly dressed. But clothes are expensive. They wear a lot of cotton clothes, and use some synthetic stuff—generally viscose fiber—to blend with the cotton. None of those things, of course, wear as well as wool nor are as warm. So the appearance of the clothing over there is not as good as ours, and you could not expect it to be. If they could cheapen the price of their products, either by raw material purchases or by changing their processes, that would improve the situation. We want it to improve, of course; we are spending a lot of money over there to that end. I think it will come about. They have the energy and the pep to put it on through. They are hard-working people, and the individual German is a fine fellow. What happens when you get him in a crowd is something else. They treated us well. How well one can size them up in three months I do not know, but a lot of them became our friends, and a lot of them are our friends.

The testing laboratories in the mills or the condition of the testing laboratories and the equipment in the mills is a little surprising. I expected that the German, as a scientific guy, would have all sorts of gadgets and test all his production every day. The fact of the matter is that we were not able to find a single air conditioning unit in the laboratory in any of the 16 mills we visited in Germany. Some of them had humidifying but did not have air conditioning. In

At left, members of the Northern North Carolina-Virginia Division of the Southern Textile Association are entertained at luncheon by the management of Highland Cotton mills. *At right,* Prof. John Bogdan addresses the general session.

addition to that, their equipment is obsolete, and so are their methods. They are not using fiber tests. They probably do not need a fiber test, anyhow; it might tell them what they would like to have, but they cannot get it. They do not have regain indicators in their picker rooms. All those things were a little bit surprising to me. The matter of testing facilities and equipment was one of the things I was interested in, and there was a notable lack of both.

The textile schools in Germany are better known than those in Belgium. There is a really famous one in Reutlingen. There is another at Munchen-Gladbach which was destroyed during the war and is now rebuilt and is doing very fine work. There is one at Aachen which specializes in wool and was not of so much interest to us, since our work was in cotton and synthetics.

What we saw were probably representative mills. They showed us large ones and some small ones and some in between. I might add that in the spinning mills all the yarns are sold on cops. They are spun on paper bobbins, which are all counted by hand and shipped very carefully, to save costs. They are shipped out to the weaving mills. There are no yarn standards. They have in Belgium what they call a yarn grade, and the poor weaver has to trust his spinner to get the quality he needs. The same thing is true in Germany. The winders are all in the spinning mills. There is no automatic winding in the mills we visited in Europe.

Discussion on Carding

Chairman Clark: I should like to know if you men are operating pickers at one-pound tolerance or one-half-pound tolerance and, if the latter, what advantage you get from using one-half-pound tolerance. What has been your experience in your picker rooms with this half-pound tolerance? Are you on half-pound tolerance or not?

We at Dan River have not been able to keep our pickers within the half-pound tolerance either way. We have run a number of tests in two of our mills. In two picker rooms I have. We do not have an overflow hopper in one. In one of those we are getting around ten per cent over the tolerance; in another one we are getting within three per cent of the tolerance. Have any of you men had experience with that? We wrote Saco-Lowell, and they said the mills should be able to operate within the tolerance.

Mr. A: We have the half-pound tolerance either way, over or under.

Chairman Clark: You split it? You go half a pound on the heavy side and a half pound on the light side?

Mr. A: No, a quarter pound.

Chairman Clark: You do have the overflow hopper?

Mr. A: Yes, we have. On the reject machine we do go over.

Mr. B: Do you run one type of cotton continuously?

Mr. A: Yes.

Question: Do you have air conditioning or humidity in your picker room?

Mr. A: We have humidity; we do not have air conditioning.

Chairman Clark: We have humidity.

Question: What percentage relative humidity do you run?

Chairman Clark: Fifty. As you say, we can not get down within that limit. Have any of you other gentlemen had any experience with that?

Mr. B: Do you use regain control?

Chairman Clark: We try to.

Mr. B: Do you follow it?

Chairman Clark: We try. We are not 100 per cent on it.

Mr. A: That is not very successful anyway, is it?

Chairman Clark: It has not been so far.

Question: Did Mr. A have a percentage?

Chairman Clark: You did not have the percentage that you are out of tolerance, did you?

Mr. A: No, sir. It is not very much.

Mr. C: What laps do you make?

Mr. A: Fourteen.

Mr. C: What about yours?

Chairman Clark: Sixteen. Is anybody else using the half-pound tolerance?

Mr. D: Yes, sir, we are.

Chairman Clark: Are you running within it?

Mr. D: Pretty well, yes, sir.

Mr. B: There is a difference of opinion whether it is better to take that lap which is beyond the tolerance and re-work it or whether it is better to let it go on in and take the chance of evening it in some later process. It certainly does not do you much good to rework it.

Chairman Clark: My personal experience is that we would be much better off to hold it at a pound tolerance and run one per cent set-back laps than to try to hold it to a half-pound and re-run more of it. The more you work cotton the more trouble you will have further on in the process.

We have been on this three-point grinding. We are making in our mills 35s, 37s, and 50s yarn. I wonder how many of you in your card rooms are grinding the doffer and the cylinder and the flats at the same time or whether you are grinding the doffer and the cylinder at the same time. We call it three-point grinding—grinding the doffer, the cylinder, and the flats at the same time. Of course, you grind the doffer much lighter than you do the cylinder and the flats. We set them at the same time.

Question: When you do the three-point grinding do you set it up all at the same time?

Chairman Clark: Yes. We set the card up on our standard settings. During the course of the grinding it is set up complete. We have tried a number of procedures on grinding, and it is more or less established that the three-point grinding gives us the best work. Of course, in your type of work it may not do that.

Mr. B: Do you grind on each shift, or do you have one shift on which you do all of your grinding?

Chairman Clark: We grind on the first and second shifts. You see, we are running three shifts five days a week at the present time.

Question: Do you grind the flats medium, heavy, or light?

Chairman Clark: That depends on the dullness of the card. Theoretically you would grind them medium during the process of grinding. That would entirely depend on the sharpness of the

Northern N. C.-Va. Division, Southern Textile Association

The Fall meeting of the Northern North Carolina-Virginia Division, Southern Textile Association, held Nov. 3 in the Y. M. C. A. Building at High Point, N. C., featured the accompanying address by Prof. John Bogdan of the North Carolina State College School of Textiles.

During the meeting Glenn R. Ward, superintendent of Highland Cotton Mills, High Point, was re-elected chairman of the division. Miles A. Carpenter, assistant superintendent of Erwin Mills, Inc., Cooleemee, N. C., was named vice-chairman; Howard Barton, superintendent of the Fieldcrest Mills rayon plant at Spray, N. C., was re-elected divisional secretary, and H. W. Buchanan, superintendent of Erlanger Mills, Lexington, N. C., was named assistant secretary. H. C. Clark, section superintendent of carding and spinning for Dan River Mills, Danville, Va., was elected to the divisional executive committee.

The accompanying abstract of Professor Bodgan's paper is restricted to his remarks on yarn manufacturing, and is followed by a stenographic report of a group discussion on carding led by H. C. Clark.

Highland Cotton Mills and Chairman Ward were hosts to the entire group at a luncheon following the group discussions on carding, spinning, weaving, time study and standards, quality control, and maintenance.

card. We say we grind cards to keep them sharp rather than to sharpen them.

Question: What is your grinding cycle?

Chairman Clark: Every eleven days. That is based on an eight-hour set-up.

Question: Is the doffer speed slow or fast?

Chairman Clark: Ours is fast. I should like to go into that matter of grinding the doffer on fast speed and slow speed and see what your experience has been along that line. I do not have any grinding slow at the present time.

What is your experience on three-point grinding? Do you use that or not?

Mr. E: Yes, sir.

Chairman Clark: How long have you been on that?

Mr. E: We have been on three-point grinding for several years. We find it is more effective and that we get better quality by having the flats and the cylinder and the doffer sharpened all at the same time.

Chairman Clark: Do you set the cards at the same time?

Mr. E: We do not set them on the same round.

Chairman Clark: Have you been on it long enough to know whether you see any difference in the length of life of your card clothing as compared with grinding in the conventional way?

Mr. F: Well, in my experience I find that light grinding is saving on the clothing and aids in keeping the card sharper.

Chairman Clark: You grind medium on your flats and cylinder, and very light on the doffer?

Mr. F: Yes, sir, light on the doffer. I am a light grinder on the doffer.

Chairman Clark: It would be interesting to know what type of grinding they have in the mills you visited, Mr. Bogdan.

Mr. Bogdan: The grinding cycle is one of the things that affect their quality over there. They grind every 360 to 400 hours in some of the mills, so it is no wonder their yarn is not worth looking at. They could achieve better results immediately by shortening the grinding cycle. They use about the same grinding methods we do but grind the flats separately.

Chairman Clark: Do they grind the flats and the cylinder with the same frequency?

Mr. Bogdan: Yes, sir. They just set it up to grind in rotation.

Chairman Clark: I think in some mills they set it up to grind the cylinder and flats every round and the doffer every other round, I believe. Some of you probably have a different schedule.

Mr. B: What is your grinding frequency? It would be rather low for a man to set up four cards and have sixty cards, wouldn't it?

Chairman Clark: Well, yes. We grind every 2,300 pounds on our cards.

Mr. H: How often do you pull your screens?

Chairman Clark: I may be wrong in what I may say here, but I think it is every four months. I am possibly wrong on that. What is your frequency on pulling the screens?

Mr. H: Three times a year.

*Chairman Clark*s How often do you pull yours?

Mr. I: Three times a year. We have just recently put in perforated screens, and I do not know what we shall do. We like them fine. We put them in about three months ago.

Mr. A: Have you made any close checks on them?

Mr. I: No, we have not.

Chairman Clark: We have not been very successful with perforated screens in our mill. We did experiment with them. Have any of you been successful with perforated screens?

Mr. H: We have used a few. It is not standard practice. Personally I think they are better on synthetics.

Mr. J: Do you know whether your nep count is lower, or can you tell any difference since you have started setting your cards all over?

Mr. H: We ran a number of tests on that and found the nep count was lower—not a great deal lower. But we changed our whole system there of grinding and stripping along about the same time, so I could not say whether or not setting them on every round would have a tendency to decrease the neps or not. It would be difficult for me to say about that in our mill. Some of these other men may have had that experience on three-point grinding. How about yours?

Mr. I: We have been doing three-point grinding for four years.

Chairman Clark: Have any of you other men had any experience with that? In your mill do you check your neps for over-all nep count at each card, or how?

Mr. K: We check at each individual card. We check after grinding, but we also try to get nep counts at other times by rotation.

Chairman Clark: You spotcheck the cards?

Mr. K: Yes, sir, through the mill. Incidentally, I should like to ask Mr. Bogdan some questions about nep counts.

Mr. Bogdan: I thought I had gotten away from that.

Mr. K: You have given us something to work on and, incidentally, have given other people something to work on. I should like to ask you if you can get as low a nep count on eight pounds an hour as you can on six and, if so, can you get as low a count on nine as you can on seven? Where do you run into the breaking point there? Didn't you make some such statement in your analysis—that you could card ten pounds an hour with the same nep count as you could eight?

Mr. Bogdan: I think, given the same cotton, two different carders will get different results.

Mr. K: I mean all in the same mill. Say you are running eight pounds an hour; someone comes along and says you can run ten pounds an hour with just as low a nep count as you can eight. Mr. Bogdan has proved that. I mean in the same mill, with the same speed and the same cotton. Mr. Bogdan has proved that.

Mr. Bogdan: You see, I do not know how good a carder you are.

Mr. K: I mean using the same methods. Take Mr. Clark's mill, over there. He says they grind every 2,300 pounds. His cards are in top shape, and assuming he is running middling cotton.

Mr. Bogdan: Where does he make his nep counts—at the end of the grinding cycle? Then he can reduce his nep counts by reducing the grinding cycle.

Mr. K: You spotcheck?

Mr. Bogdan: Nep counts vary from time to time with grinding, with stripping, and so forth.

Mr. K: That is right, but I am concerned with pounds per hour. Where should you stop, for quality? Should it be eight pounds, ten pounds, or nine pounds?

Chairman Clark: Are you speaking of combed yarn, now, or carded?

Mr. K: Carded yarn.

Mr. Bogdan: We have some yarns there that were spun after carding—we ran that card I think at 35 pounds per hour, using one-inch cotton, and spun it into a yarn that was graded A-minus and B-plus by mill men. To do a job like that you have to have, obviously, a coarse cotton that is not going to nep up. I can make a yarn that is just as neppy as you want; I mean just by offsetting some of the settings.

Mr. K: Can we run ten pounds with as few neps as we can eight?

Mr. Bogdan: I don't know what you are doing today.

Chairman Clark: Our experience is that we can not. We can run 8.5 and then drop to 7.5, and there is a tremendous drop in nep count.

Mr. Bogdan: You mean you just raise your production without making other changes?

Mr. K: Yes.

Mr. Bogdan: Oh, of course you can not raise your production unless you make other changes.

Mr. K: You mean if I am running six pounds and go to seven I can not get as good quality as I did before?

Mr. Bogdan: No.

Mr. K: And if I go to eight from seven I can not make as good quality?

Mr. Bogdan: No. You have to make some changes.

Chairman Clark: We have been all up and down the ladder. I guess the speed of the card, as he says, will vary the nep count.

Question: What is your fastest speed?

Chairman Clark: Eight point five, in my mill. In some of the divisions they are running 11.5. That is coarse cotton which goes into sheeting or something like that. On fine yarns we run as low as 5.5 or 6. I am firm in the belief that with anything over six, so far as combed yarn is concerned, you run into trouble—that is, with the settings we have now. Your settings may be different from ours.

Mr. K: Don't you think the same thing holds true on carded yarn over ten pounds?

Chairman Clark: I firmly believe that if you get to ten pounds you are in trouble. In our mill we are in trouble if we go that

WENTWORTH

Double Duty **Travelers**

BEWARE OF CHEAP IMITATIONS

NATIONAL RING TRAVELER CO. PAWT. R.I. U.S.A.

Reg. U. S. Pat. Off.

HICKS — AMERICAN — WILSON — U. S. STANDARD

Last Longer, Make Stronger Yarn, Run Clear, preserve the SPINNING RING. The greatest improvement entering the spinning room since the advent of the HIGH SPEED SPINDLE

NATIONAL—ETARTNEP FINISH
A NEW CHEMICAL TREATMENT

Manufactured only by the

NATIONAL RING TRAVELER CO.

PAWTUCKET, R. I.
131 W. First St., Charlotte, N. C.

You Get—

QUALITY SERVICE
AND ACCURACY

When you have your Spindles, Pressers, Flyers, Steel Rolls & Picker Aprons reconditioned by

NORLANDER-YOUNG

MACHINE COMPANY

York Road Phone 5-4022
GASTONIA, N. C.

☆

QUALITY AND SERVICE AT A MINIMUM COST
Has realized thousands of repeated orders

Consult

BORNE, SCRYMSER

about

PROCESS COMPOUNDS
for all types of
SYNTHETIC
and **NATURAL FIBERS**

Take advantage of our 77 years' experience and technical research. Remember you can depend upon us to help you in any problem regarding process compounds for all types of synthetic and natural fibers.

Ask for Complete Facts about

MINOTINTS & TINTINOLS
Static Control plus 18 colors

MINEROL
The Original Conditioner

RAYON PROCESS OILS

S S BASE OIL

BRETON OILS FOR WOOL
Originators of the BRETON MINEROL PROCESS for Fiber Conditioning

MEON
Inhibitor and Stabilizer
Twist Setter and Tensile Strength Improver

Our Laboratory Facilities are at your disposal

BORNE Since 1874 SCRYMSER

BORNE, SCRYMSER
Company
Established 1874
Elizabeth, N. J. Charlotte, N. C.

high. In our mill we do not run any yarns lighter than 20s, say, with over 8.5.

Mr. K: I should like to have the opinion of other people on that.

Mr. L: You mean the nep counts and how many pounds you are producing per hour? We find in our mill that the slower we run our cards the better the quality. We usually run around 5.5 pounds. If we go as high as 7.5 we run into right much trouble with our combed yarn.

Chairman Clark: I think that, universally, 6.0 is the breaking point for combed yarn, from the experience I have had. Are any of you running combed work over 6.0 pounds?

Mr. M: In our mill we tried 6.0 pounds, and we ran into heavy nep counts and had to go back.

Chairman Clark: What are you running now?

Mr. M: 5.5 pounds.

Mr. N: On combed yarns we have run 8.0 pounds and better. We have; we are not doing it now.

Chairman Clark: Is your nep count pretty high?

Mr. N: Not very. Not too high. We got away with it for about 15 years.

Chairman Clark: Another question we have been kicking around is whether it is practicable to speed your doffer up during grinding. I have not had any experience whatever on that, but I have been reading something about it and I think it was done years ago. Are any of you running your doffer speed up say maybe ten turns during the course of the grinding, or are you speeding up on it at all? How is yours running?

Mr. K: I don't know just what the speed is during grinding. Have you any figures, Mr. H?

Mr. H: No, I haven't, but it is speeded up.

Mr. K: Yes, it is speeded up, but I do not have the figures on it. I would say it is running fast, though.

Chairman Clark: Do any of you grind slow?

Mr. I: We run ours slow.

Chairman Clark: Do you think you are getting a better point on it by slow grinding? We think we get a diamond point on it by grinding slow. I have looked at it through a glass and think we get a diamond point rather than a slanting point when grinding slow.

Mr. I: I have not looked at it through the glass, but we think we get better results by grinding slow than by grinding fast.

Chairman Clark: I wonder if you are getting into any waviness of your wire on the doffer.

Mr. I: I have not seen any. We think it is doing fine.

Mr. A: What do you mean by grinding slow—your doffer turning slow or the traverse?

Mr. I: The doffer.

Mr. Bogdan: We do not do slow grinding; we grind fast.

Chairman Clark: That is in line with what we are doing on our doffers. Frankly, the way in which this came about is that we have a night school there in Danville for about 250 students, and in the school it came up in class one night. Someone said that some of the mills were going to this slow speed. I wondered if any of you have had enough experience to know whether it gives you better work or whether it is harming the wire on your card.

Mr. H: We tried that some time ago and did not notice a difference on the card and went back to the fast grinding.

Chairman Clark: What was the difference that you noticed?

Mr. H: It does not sharpen the doffer as well and does not give you a correct point on the wire in grinding slow.

Chairman Clark: Did you have any difficulty with your wire loading up and not picking off the cylinder?

Mr. H: No.

Chairman Clark: Do you use vacuum stripping in your mill?

Mr. H: Yes, sir.

Chairman Clark: Do you notice any difference in the stripping with slow grinding or fast?

Mr. H: No, sir.

Chairman Clark: I had the wild idea that with that point at an angle the cotton would have a tendency to stick in there, more so than it would on the diamond-point wire.

Mr. O: I had some experience at the Watts Mill, at Laurens, some years ago. They were on rayon at the time, and we tried this slow grinding. They experimented and found that by bringing it up three teeth it would put a fine point on the wire.

Chairman Clark: What were they running the doffer to begin with?

Mr. O: I am not sure about that now, but it was just about the regular speed.

Chairman Clark: About seven or eight turns?

Mr. O: Yes, sir.

Chairman Clark: As I say, I have not had any experience with that, but there seems to be a lot of talk about slow grinding of the doffer. Frankly, I do not know about it. On the stripping, on vacuum stripping, what is the frequency generally used in stripping? How many times do you strip yours?

Mr. H: Three times in eight hours.

Chairman Clark: I presume that is pretty universal.

Mr. H: Do you strip with the feed cut out or running?

Chairman Clark: I can answer what we do. We strip with ours out.

Mr. H: Why do you cut it out?

Chairman Clark: We feel that we are taking some of the cotton back out by stripping with the feed running.

Mr. H: Of course, you take some out anyway—what is in the cylinder.

Mr. I: We cut ours out.

Mr. A: Let me ask you this. You have a thin place either way, don't you, if you cut it out or leave it in?

Mr. H: We leave the feed cut in.

Mr. K: I will make a correction on that. It is not the card running but the feed cut in.

Mr. A: Either way it would be the same. If you cut it out you have to let it run until the feed goes to a certain standpoint. If you do not cut it out you have to let it run there when you cut it in. If you cut it out it has to run there until your stripper gets to the other end. There may be a little time saved there.

Mr. H: There would be a little difference in time.

Mr. A: I don't think there would be in quality.

Mr. K: There are some who think there is less waste by having the feed cut out than by leaving the feed cut in, but if you wait until your cylinder loads again to the place where you would not have too great variation I am not so sure that you would not come out with the same amount of waste.

Mr. A: I think there might be a little time saved in the stripping; but I do not think there would be any change in the waste or the quality, from the tests we have made.

Chairman Clark: I think that is a good point. We have not checked on that.

Question: Do you use a two-man team or use one man?

Chairman Clark: In our mill we use a two-man team, and in the other one man.

Mr. A: That is what we do; we use a two-man team.

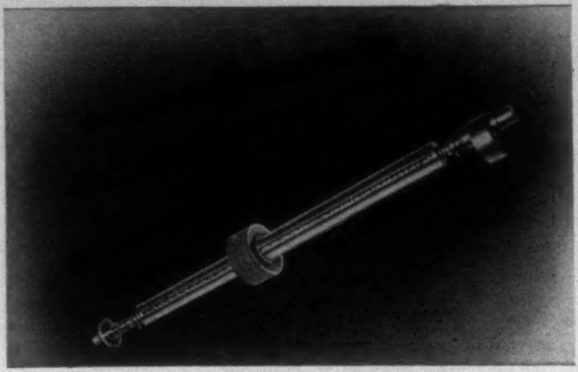
Chairman Clark: One of our mills is more modern than the other, and we use two men in stripping there and one in the other.

Opener Room Fire Protection

The Grinnell opener room fire protection system is described in a four-page bulletin currently being distributed by the Grinnell Co., Providence, R. I. According to the company, the Grinnell system saves precious cotton and avoids costly shutdown delays by providing a manually operated fine-spray system which prevents flame spread and practically eliminates stock damage.

Describing the system, the bulletin states, in part: "Grinnell ProtectoSpray heads attached to piping suspended below the ceiling are connected to a water supply through a quick-acting valve with one or more remote control stations, strategically located in the room. The location of each head and the choice of the spray patterns are carefully engineered to insure uniform and complete coverage of the entire hazard area.

Pakistan expects to be largely sufficient in cotton textiles by 1954, if the present program for developments of the industry can be completed within that time. Output has increased about 25 per cent since the effort began in 1948, and plans to build 35 new cotton mills are under way.



LENGTHEN THE LIFE OF YOUR CARD GRINDERS

ROY service engineers—card grinding specialists—are always at your service. They will go to your plant to work out your card grinding problems, check your machinery, give you constructive information on grinding bare cylinders or card wire.

Maintenance is top importance now.

B. S. ROY & SON COMPANY

Worcester, Mass. — Charlotte, N. C.

Sales Engineers in the South:
Charles E. Hendrick—L. P. Bell—W. F. Crowder
Office and plant, 1623 North Tryon Street, Route 29
Charlotte, N. C.—Tel. 5-3845

Sterling Ring Travelers

SERVICE

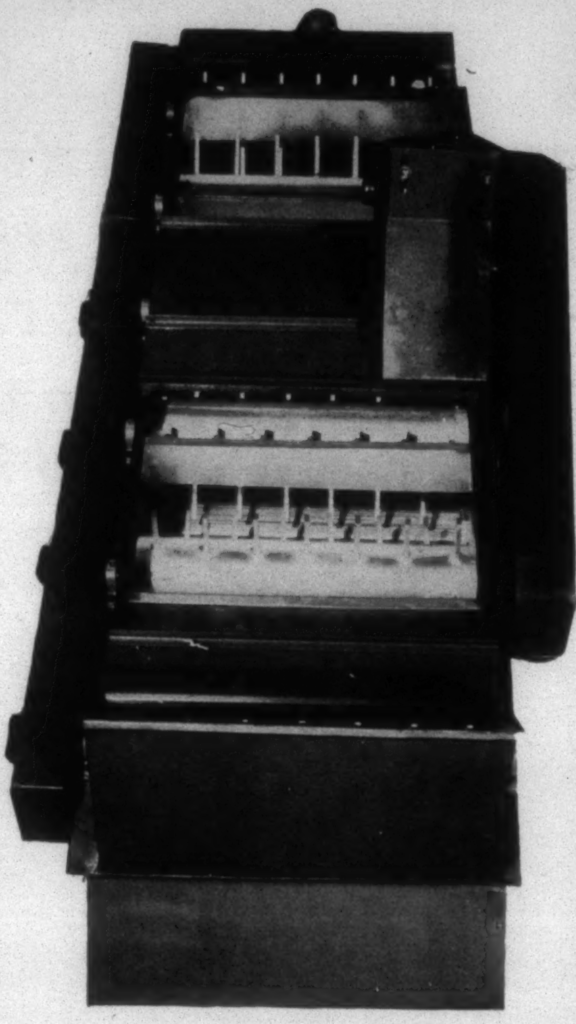
Sterling's practical Service Engineers can also help you control your Traveler inventory.

Keep costs down and production up by consulting with us before making large purchases.

M. H. CRANFORD
Box 204, Chester, S. C.
D. R. IVESTER
Box 882, Clarkesville, Ga.
T. B. FARMER
Box 150, Langley, S. C.

STERLING RING TRAVELER CO.
FALL RIVER, MASS.

You will get Cleaner Cotton with the
THORNBURG CLEANER



Air Free

No air movements to obstruct the centrifugal action of the beaters upon the fibre and no air current to carry light leaf, etc., through with the cleaned cotton. Dust, motes, fly, leaf, and other foreign trash is loosened, separated, and permitted to fall by force of gravity through the grids, without interference by air currents, into the large refuse chamber.

Employs mechanical and centrifugal force to progressively open and clean cotton or other fibres through six individual cylinders. Revolving beaters open and pass it over 225 vibrating, adjustable, non-choke grid bars. Centrifugal force and gravity opens the stock and removes motes, sand, dust, leaf, fly, and other foreign matter.

30 Days Free Trial In Your Mill Without Obligation!

THORNBURG MACHINE WORKS

DALLAS - Phone 6829 - N. C.

JACOBS

HARDWOOD LOOM NECESSITIES

Made From the Finest Hickory and Dogwood

- Box Fronts
- Crank or Pitman Arms
- Creel Sticks
- Harness Roll Bearings
- Jack Sticks
- Laysword Reed Caps
- Lease Rods
- Roving Sticks
- Top Clearer Boards
- Under Clearer Roll Sticks
- Whip Roll Blocks
- Whip Roll Shaft Bearings

• Additional Stocks at:

1602 Cedar Springs, Dallas, Texas

JACOBS

THE BULLARD CLARK COMPANY

E. H. JACOBS

Northern Division **DANIELSON, CONN.** • Southern Division **CHARLOTTE, N. C.**

Warp Preparation & Weaving

SO YOU WANT GOOD CLOTH!

By FRANK D. HERRING

Part 31 – Overshots & Undershots

WHILE a loom is in operation the shuttle passes from end to end of the lay between the top and bottom sheds of the warp yarn and lays the strand of filling yarn, which is contained in the shuttle, but sometimes a portion of the warp threads in one or more of the top or bottom sheds will be slack and fail to open wide enough to allow the free passage of the shuttle, and in this event the shuttle will pass over or under one or more of these slack threads with overshots or undershots resulting. This, of course, will break the uniform interlocking of the warp and filling yarns and make an irreparable imperfection in the cloth.

Of course the weavers should be trained to check the cloth on their looms for these and other imperfections, and overshots and undershots are sometimes very difficult to detect on the loom, especially on high count fabrics using fine yarn numbers. A Draper loom is composed of many hundreds of parts, or pieces, and a big majority of these parts are stationary, immovable parts, and when the loom is built or assembled these stationary parts should be put in place, and tightened, for best results according to the type of fabrics to be woven. Of course this does not apply to all of the stationary parts on the loom as many of them can be set the same way and then left alone regardless of the goods being woven. Included in these stationary parts which require different settings for best results according to the goods being woven are the whip roll, stop motion girt, and the take-up roll. The success or failure of the mill can depend on the way these parts are adjusted, because the adjustments of these parts affect the fabric being woven in so many ways, such as reedy cloth, overshots and undershots, excessive warp yarn breakage, etc. (I have shown in Part 24, Fig. 77, May, 1951 issue of TEXTILE BULLETIN a gauge to be used for setting the whip roll, stop-motion girt, and the take-up roll.) The use of this gauge will enable the loom fixer to maintain the same settings on all his looms, and do the job easily and quickly. If the overseer allows the loom fixers to change the settings on these parts according to their own notions he is inviting trouble for himself on the job, and many complaints from the customers who buy the cloth which he is producing.

There are a number of things which cause overshots and undershots in cloth, and they will all be covered, but the two basic causes for these defects come from the use of excessively worn, or too small harness cams, and improper setting of the whip roll, stop-motion girt, and the take-up roll. The size, or throw of the harness cams should be determined by the size of the shuttle being used. With the lay on extreme back center position and the top and bottom sheds wide open and the shuttle resting back against the reed there should be about one-half inch clearance between the warp yarn of the top shed and the front wall of the shuttle. If the harness cams do not give this clearance they are either too small or excessively worn, which amounts to the same thing. It has been my experience that too many overseers are too indifferent about seeing to it that the proper size harness cams are bought, and the replacement of excessively worn cams. I mention the overseer and the other supervisory personnel very often in this series, because I find it impossible to give proper coverage of fixing looms without doing so, because if the supervision is not up to par the loom fixer is handicapped to such an extent that he cannot do his job efficiently, and he will naturally become an indifferent workman. I think it is best if the overseer knows the hows and the whys about loom fixing, how the parts of the loom should be applied and adjusted, and why they should be thus and so, and I think he should explain these things to the fixer and make sure the fixer understands and accepts them. However, it is not absolutely necessary for the overseer to do these things himself provided he has a man under his charge in a supervisory capacity, second hand or head loom fixer, who is capable of doing this work. None of us is infallible; we never learn all there is to know about weaving and fixing looms, so, when satisfactory results are not obtained and the overseer is in doubt he should contact the loom builders and ask them to send one of their service men to help out. We all learn more by co-operating with and working with other men, provided we can forget our pride long enough to admit that we are not quite sure.

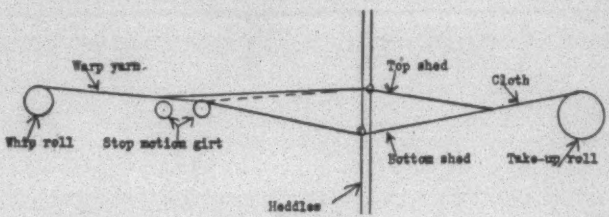


Fig. 98.

Shown in Fig. 98 is the correct setting, for best all around results, on the whip roll, stop-motion girt, and the take-up roll. To obtain face or cover on cloth and to eliminate a reedy appearance it is absolutely necessary to position the take-up roll in a rather high position, so, I advocate raising the take-up roll as high as the adjusting arrangement will allow and tighten it and leave it alone, because any adjustments needed to obtain the correct tension on the warp sheds can be gotten by adjustments which can easily be made on the whip roll and the stop-motion girt. As stated before, it is absolutely necessary to have a tighter tension on the bottom shed, when the sheds are wide open, than on the top shed, but this relative tension on the sheds can be carried to the extreme and create many troubles, such as overshots, undershots, excessive warp yarn breakage, etc.

Fig. 98 shows the wide open sheds when the lay is on extreme front center position, this is the point where the warp sheds are tightest, but it will be noted that the bottom shed is tighter than the top shed because it is slightly bent over the front part of the stop-motion girt. Also it will be noted that the yarn in the top shed separates from the yarn in bottom shed back to the back part of the stop-motion girt. (This is necessary to prevent mat ups and drawbacks). Dotted line in Fig. 98 shows the position of the yarn in the top shed when the lay is on extreme back center position. At this point the top shed will be much slacker than the bottom shed, but not slack enough to allow the warp threads to sag down and strike the shuttle, which is passing through when the lay is in this position, and cause excessive warp yarn breakage, and overshots.

When setting the stop-motion girt and the whip roll there are two very vital points that should be kept in mind; that when the warp sheds are wide open with the lay on back center the warp yarn should separate back to the front top point of the stop-motion girt or the front row of drop wires, and when the lay is on extreme front center position with the warp sheds wide open the warp yarn should separate back to the extreme back part of the stop-motion girt or all the way back through the drop wires. Of course the harness should be set, all the harness regardless of how many being used, to a point where the bottom sheds will just barely clear the race plate when the sheds are wide open and the lay on extreme back center position before the adjustments are made on the stop-motion girt and the whip roll. Also, the harness cams should be timed and thoroughly tightened before these adjustments are made. The harness cams should be timed and tightened with the changing sheds level far enough back from front center so that these changing sheds will be wide open when the lay reaches front center.

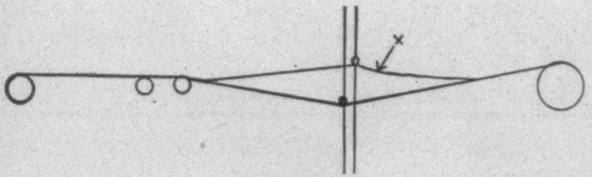


Fig. 99.

The easiest, surest, and quickest way to obtain a desirable setting on these parts is to proceed as follows—adjust and tighten the take-up roll as already suggested, then set each harness shed and time the harness cams, then with the back harness shed in down position and the lay on back center adjust and tighten the stop motion girt to a position where the front part of the girt will slightly raise the yarn in the down shed, as shown in Fig. 98, and then adjust the whip roll to a point where the yarn in this down shed will clear the back part of the stop motion girt about one-quarter inch with the lay still on back center position.

Fig. 99 shows improper settings on the whip roll in relation to the stop-motion girt and the take-up roll. The settings on the harness, the take-up roll and the girt are the same as shown in Fig. 98, but the whip roll is too low in relation to the stop-motion girt and this creates a very bad condition because it adds unnecessary strain on the yarn in the down shed, and when this shed rises to up position the yarn will have a tendency to slacken and sag down and the shuttle will strike it, causing excessive yarn breakage, and will sometimes ride over some of these slack threads and make overshots in the cloth. When making the above mentioned settings, care must be taken not to get the whip roll too high, or the stop motion too low, as either of these conditions would cause the yarn in the top shed to rise too high in relation to the stop-motion girt and drive the drop wires against the drop wire bars, and this will damage and sometimes break the bars, and cause undue chafing and breakage of the warp yarn, and will also destroy the face, or cover on the cloth.

After the above mentioned things have been checked, and proper adjustments made if needed, most of the causes for overshots and undershots will be corrected, but there are some other things which can cause these defects. So, it is best to follow through and check the following things in the order named.

(1) The reed. If the dents of the reed become bent they will bind against each other and pinch the warp threads and cause them to become slackened and the shuttle will pass over them, when it should pass under, and make overshots, and also the shuttle will sometimes pass under the threads when it should pass over them, and this will make undershots. Very often the warp man, or whoever ties in the warps, will drive the reed caps down too tight on the reed, and this will spring the dents and cause them to bind against each other and pinch the warp threads causing the same as mentioned above. Driving the reed cap down too tight and damaging the reed near the ends is why we have more overshots and undershots near the selvages of the cloth than nearer the middle of the cloth.

(2) The harness frames. If the heddle rod or bar hooks are not in the proper place it will cause the warp yarn to be pinched between the heddles and cause the same troubles as mentioned above. If the heddle bar hooks are broken this will allow the heddle bars to bow up when the shed is down and down when the shed is up, and both will cause the shed to be too narrow for free passage of the shuttle, and the shuttle will sometimes pass over or under the warp yarn at these bowed places and make overshots or undershots. The harness frames and the reeds, we speak of these as patterns, should always be thoroughly examined in the tying-in or drawing-in departments, while they are off the loom, and all necessary repairs made before they are sent back to the weave room, as it is almost impossible to make these repairs when they are on the loom. The heddles should have perfect freedom of movement on the heddle bars, and care should be taken when adjusting the heddle bar hooks, otherwise the heddles will bind on the bars and cause the yarn to be pinched and slackened.

(3) The lay end plates. If the lay end plates are loose it will cause many troubles, and one of those troubles are overshots, because the shuttle will rise out of position when it leaves the shuttle box on the pick and will enter between the warp sheds pointing upward and will sometimes pass underneath some of the yarn in top shed and make overshots.

(4) The top harness rigging. Regardless of what type of

top harness motion is being used they should be checked carefully to determine if every harness is rising to its maximum height on every rise. Sometimes one or more harness will lag back and fail to rise high enough for the yarn in that shed to clear the shuttle, and the shuttle will ride over some of the warp threads and make overshots. This trouble can be caused by a number of things, such as improper adjusting of the top harness strapping, strapping not divided correctly on the top rollers, top rollers or sheaves binding, and top springs too weak.

(5) The pick motion. Check to determine if the parallels are tight, and in position on the rocker shaft, and also check the parallel plug and if excessively worn it should be replaced, because either of these things will interfere with the straight passage of the shuttle, and that will sometimes cause overshots and undershots. Check the height of the lug hanger, and the stroke on the picker stick. If the lug hanger is too low it will cause a harsh heavy pick and is likely to throw the shuttle in most any direction, and in this event it will sometimes plow through the harness sheds and make overshots and undershots. If the stroke is too long on the picker stick the same thing as mentioned above can happen. After the above adjustments have been made the timing of the pick cam should be checked, and if needed it should be set and securely tightened. If the pick cam is timed too early the shuttle will be thrown into the harness sheds before they are sufficiently opened to receive it, and excessive warp yarn breakage and overshots and undershots will be the result. If the pick cam is timed too late the shuttle will not clear the harness sheds on the opposite ends before they start closing, and this will sometimes cause the shuttle to ride over or under the warp yarn and make overshots and undershots.

(6) Tension on the warp yarn. If the tension on the warp yarn is too slack it will cause some of the warp threads to slacken and drop down in the top sheds, and cause some of the threads in the bottom sheds to fail to go down low enough, and the shuttle will ride over and under them making overshots and undershots. This condition also will cause excessive warp yarn breakage.

(7) The temples. Sometimes the temple rolls will become stuck, or choked up with threads and fail to turn properly, and this will slacken the warp yarn at this point and cause the shuttle to ride over or under the threads and make overshots and undershots.

(8) The take-up roll. The take-up roll covering should be checked carefully to determine if it is loose or broken. If the covering is loose or a portion of it broken off the warp yarn will become slackened and will sometimes cause overshots and undershots. This condition also will cause what we refer to as puckered places in the cloth, which is a very objectionable defect.

Alabama Textile Operating Executives' Meeting

By HARWELL HOWARD

AN overflow crowd of Alabama textile operating executives assembled in the large auditorium of Biggin Hall, new architecture and arts building on the Alabama Polytechnic Institute campus in Auburn, Nov. 3, to swap shop talk about slashing and weaving problems in their mills. Representatives from Georgia mills also attended.

Dr. R. C. S. Young of Atlanta, an official in the University of Georgia educational system, addressed the group on "Where Are We Going?" The Scottish-born educator said that pitting people against each other brought destruction to Europe and it will do so in this country unless it is curbed. "The deadly hand of Socialism is creeping over America and stultifying and killing initiative," he told the executives.

J. D. Whatley, superintendent of the Textron Southern, Inc., plant at Cordova, Ala., presided over the first half of the meeting, during which slashing questions were discussed. In the first discussion—on improvements resulting from the use of homogenized size—George Calloway of Avondale Mills, Sylacauga, reported:

"We have found that our size is more uniform from kettle to kettle giving us better results throughout on slashing. And there is definitely more pick-up resulting from the use of homogenized size than from size made from thin boiling starch. We found that to get our required pick-up we had to reduce our old formula approximately ten per cent after installing homogenizers.

"Because of better penetration," he continued, "the shedding is not as great when homogenized size is used as when regular corn starch is used. Not only is the penetration better but the yarn is not coated.

"We cannot say definitely that our efficiency pick-up is due altogether to homogenizers but our efficiency charts indicate that our loom efficiency picked up approximately 3½ per cent after homogenizers were installed."

He reported no experience on using the heat exchanger instead of conventional homogenizing.

All of the reports that follow were not necessarily aired on the floor of the meeting, since time did not permit it. But all of the discussions that follow were submitted to Ben Crawford, secretary-treasurer of the Alabama Textile Operating Executives, in answer to questions which he sent mill executives over the state. They are believed to give a good cross-section of the opinions of those attending the meeting on the slashing and weaving questions.

At Pepperell Mfg. Co., Pepperell, Ala., the pick-up on homogenized size was reported as about the same as for thin boiling starch. And shedding was visibly less on homogenized size than on regular corn starch size. The penetration of homogenized size was probably less than that of regular corn starch size and a more uniform coating was put on the yarn.

"Our weaving efficiency is higher now than it was before we began using homogenized size," the Pepperell executive said, "but we feel that this is due to other conditions than methods of preparing size."

He cited the following as the main advantages of using a homogenizer to prepare size (1) a savings in steam and starch cost; (2) less chance of human error in preparation; and (3) more uniformity of mix.

A representative from Textron Southern, Inc., at Cordova, said that improvements and advantages of using homogenized size "depend on the pressure used on the homogenizer. If sufficient pressure is not used, there will be more pick-up. If too much pressure is used, there will not be as much pick-up.

"We have reduced our shedding about one-fourth since we started using homogenized size but we feel that other improvements have contributed to this."

Discussing the penetration of the yarn, he pointed out, "If the pressure on the homogenizer is run too high, it cuts the viscosity of the starch and it will penetrate more and will not leave the film of size on yarn that it should have. If run too low, the size will be too heavy and will not penetrate the yarn as well.

"We have improved our efficiency about one per cent since we started using homogenized size and pearl starch. We cannot give all the credit to the homogenized size as we made other changes along with the size, but we are sure it weaves equally as well."

At Tallassee Mills—The weaving efficiency is as high or slightly higher since homogenized size has been used. The penetration is equally as good as for regular corn starch size and the sheedding is less on both slasher and loom. This mill reported that with homogenized size it had not found any more pick-up than on size made from thin boiling starch.

At Lanett Mills—We found no difference in the degree of pick-up on yarn, although in changing to homogenizers we also changed from thin boiling to pearl starch. And while no difference was noticed in shedding, we feel certain that there has been no increase. We feel that we get better penetration by using a size of more even viscosity but have no definite proof of this. Weaving efficiencies have been equally as good or better on homogenized warps although other factors make it difficult to determine the exact difference that is due to homogenizing.

Russell Mfg. Co., at Alexander City, also said that it had noticed no increase in size pick-up. But, by using homogenized size, "there is much less shedding at the slasher, although the difference is less noticeable on the loom. We have not been able to trace any increased efficiency to homogenized size." The Russell mill was one of the few textile firms to report experience with the heat exchanger. "Two advantages which seem readily apparent," a Russell representative reported, "are the savings in time in heating the size and the fact that the homogenizer may be started and stopped at will."

A representative of Dwight Mfg. Co. at Alabama City pointed out that pearl starch can be used instead of the more expensive thin boiling starch. About two-thirds less cooking equipment is required, he said And, of course, this reduction in equipment means less maintenance.

Mr. Whatley, the leader of the slashing discussion, called for a show of hands by those who used homogenized size and were dissatisfied with it. He got the same sort of report when he asked if any one changed humidity in the weave room after adding homogenized size.

Among the mills reporting no experience with homogenized size were Bemis Bros. Bag Co. at Talladega, Langdale Mills at Langdale, Ala., and Fairfax Mills at Fairfax. At Huntsville Mfg. Co., in Huntsville, its use is in the experimental stage.

Most of the time given over to discussing the second question—experiences with multi-motor slasher drives—was consumed by a comprehensive report from Tom Lane, West Point (Ga.) Foundry & Machine Co.

This report follows:

The multi-motor drive is electrical equipment necessary for a variable voltage drive when applied to a slasher having a beam motor, a delivery roll motor and a size roll motor. This multi-motor drive will provide an operating range varying from approximately 20 yards minimum operating speed to 100 yards maximum operating speed with a threading speed of approximately four to five yards per minute. Power for the delivery roll, beam roll, and size box motors will be from a variable voltage d.c. motor-generator set.

On most multi-motor slasher applications, a motor is applied to the beam, delivery roll and to each size box. On those slashers having seven or nine 30-inch diameter drying cylinders a motor is also applied to this drying section. On the larger type of cylinders with five-foot and seven-foot diameters a driving motor is considered necessary.

The use of separate motors on the several rolls of a slasher provides an easy means for adjusting and controlling tension and stretch in the yarn. When tension and stretch are kept constant, a beam that is uniformly wound from start to finish is assured. Excessive stretch in the yarn is eliminated and a better final product is obtained.

It can easily be seen that this type of drive eliminates most of the undesirable mechanical features and leaves a slasher clean and accessible. The friction clutch is eliminated by the beam motor, all bevel gearing is eliminated from the delivery roll and the side shafting and bevel gear drive is eliminated from the size roll. Except for some special applications, a duplicate gear motor has been found satisfactory for all delivery roll, dry can and size roll applications. These motors have output speeds such as permit the use of a single sprocket and chain connection to the driven roll. Totally-enclosed non-ventilated construction is best because of the motor location and such construction protects the motor and keeps maintenance at minimum level.

A very low voltage is applied to obtain suitable creep speed. A motor-operated rheostat causes the generator volts to increase slowly and at a steady rate when going from creep speed to production speed and also to decrease at a steady rate when returning to creep speed. By so doing, the yarn is subjected to much less stress than is true with other types of drives. Although it would be difficult to provide actual figures, it is generally conceded that far fewer ends are broken during acceleration and deceleration which contribute to a superior loom beam and better woven goods.

The real heart of a multi-motor is, of course, the method by which the loom beam is wound. A desirable though impossible operation on friction would be to readjust the weights each time a new warp is added to the beam. In the multi-motor scheme of operation this weight is adjusted automatically each and every time a new layer of yarn is added to the beam diameter. Actually, there are no weights but the idea is the same and this is how it works:

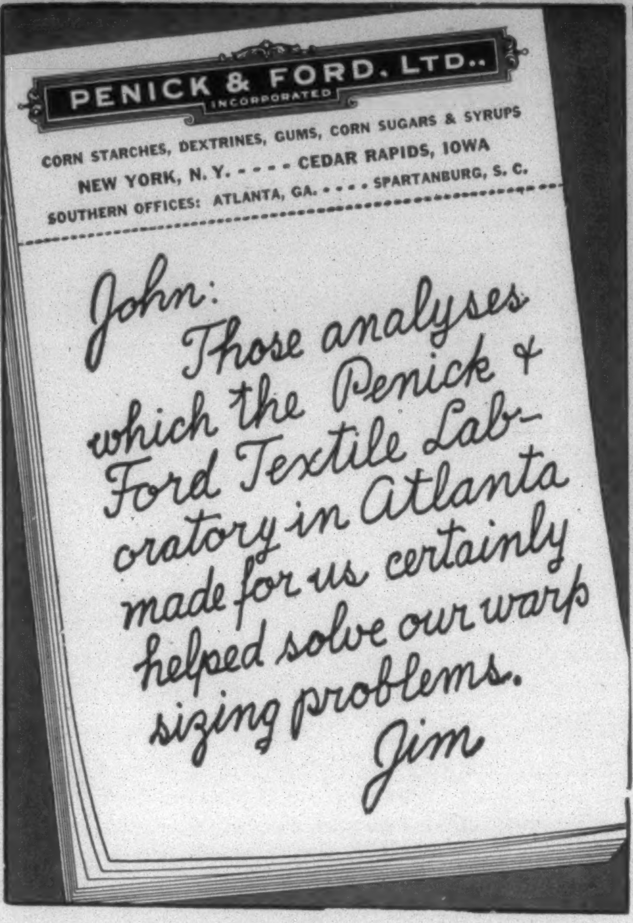
A motor called the beam motor is connected, usually by sprocket and chain, to the beam shaft and drives the core on which the yarn is to be wound. The delivery roll motor in a like manner is connected to the delivery roll.

When set at operating speed, all motors maintain constant speed—except the beam motor. The beam motor automatically slows down as the beam builds up, in order to maintain the pre-set winding tension.

Slasher drives have a wide speed range. The slashers can be run at high speeds safely because tension control is positive. Some are now operating at more than 100 yards per minute. Operators like the drive because it's much easier to run than mechanical drives. There are fewer stops and adjustments, and those needed are simple to make.

Before threading, the desired slasher operating speed and tension are usually set at the proper control station. The operator presses one of several conveniently located creep push-buttons and the drive moves into low speed for easy threading. When the warp has been secured to the beam, the fast button is pressed. The complete drive is brought smoothly and automatically to the pre-set running speed.

To compensate for shrinkage or stretch, the tension between sections of the slasher can be changed during normal running. The operator turns a rheostat at the local control station until the desired



PENICK & FORD, LTD.,
INCORPORATED

CORN STARCHES, DEXTRINES, GUMS, CORN SUGARS & SYRUPS
NEW YORK, N. Y. - - - - CEDAR RAPIDS, IOWA
SOUTHERN OFFICES: ATLANTA, GA. - - - - SPARTANBURG, S. C.

John:
Those analyses which the Penick & Ford Textile Laboratory in Atlanta made for us certainly helped solve our warp sizing problems.
Jim

Dixie
TEXTILE MACHINE CO., INC.

Plant Located at 801 McCormick Street

Manufacturers of

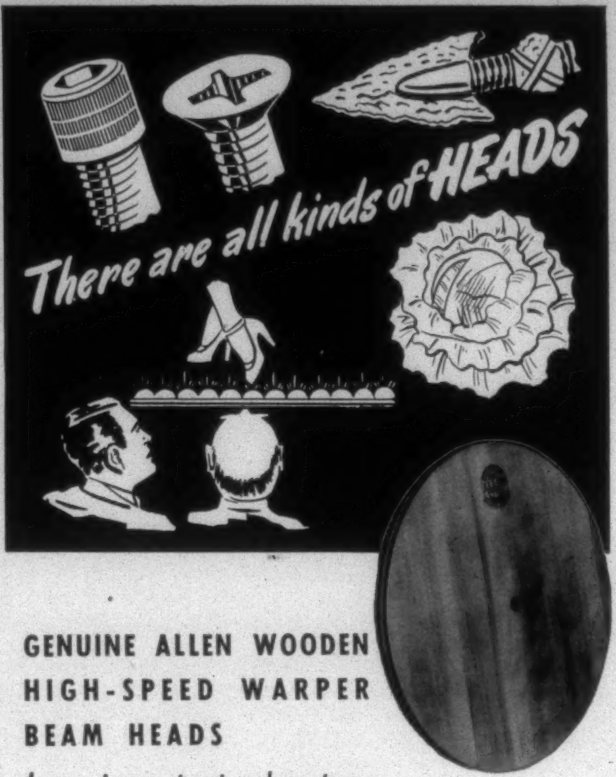
Dixie Loom Reeds and Combs
Pitch Band or All Metal

Machine Parts, Metal Dies and Metal Stampings
Heddle Bars and Slide Rods
Made to Order

Jobbers for Mystik Tape

Let Dixie Loom Reeds Fulfill Your Weaving Needs

P. O. Box 875 Greensboro, N. C.
Call 4-5458 Collect


There are all kinds of HEADS

GENUINE ALLEN WOODEN HIGH-SPEED WARPER BEAM HEADS

have important advantages

Based on 35 years of research and experience, Allen heads are built of heavy layers sawed from solid lumber, not thin rotary-peeled slices. Their scientifically balanced construction is responsible for their ability to stand up, as demonstrated over the years.

1. **LONG LIFE** — practically unbreakable, either in use or in shipment.
2. **RESILIENT** — they are designed to withstand side stresses of yarn build-up and will not take a set.
3. **TRANSPORTATION** — also designed to take the rough handling of shipping. Claims for head breakage eliminated.
4. **HIGH SPEED** — precision made and balanced. Successfully used on any high speed warper unit.

THE BEST BUY IS THE BEAM HEAD THAT HAS PROVED IT CAN TAKE ROUGH HANDLING AND GIVE LONG LIFE AND USEFULNESS.

ALLEN
BEAM COMPANY
High Speed Warper Beams
Warper Beam Heads
Loom Beams
Adjustable Loom Beam Heads

General Offices — 151 River Road
New Bedford, Mass.
Representatives in all Textile Localities
and all Principal Countries of the World.

"GOOD WARPS ARE MADE ON GOOD BEAMS"

tension shows on the indicator. Operating speed and winding tension can be adjusted as desired during the normal operation.

When the creep button is pressed during normal running, the complete drive is brought smoothly to creeping speed. When the stop button is pressed during normal running, the drive comes to creeping speed and stops. A light stalled tension is then maintained in the warp at the beam.

When the slasher is stopped for changing beams, the beam motor is disconnected by a push-button at the beam motor control station. This removes the stalled tension. As soon as the new beam is in place, the warp is advanced by running the slasher at creeping speed with the beam motor still disconnected. When the warp has been secured to the new beam, the beam motor is turned on again, thus taking up the slack in the warp. The slasher is then restarted in the usual way.

The slasher can be stopped, started, or run at creeping speed without upsetting the pre-set running speed or tension. It returns to the correct speed and tension when the fast button is pressed.

Yarn or beam tension is set by means of a rheostat. A meter indicates the load taken by the driving motor.

Yarn tension, when once set at the desired value, remains constant throughout the cycle from empty to full beam.

All beams of a given grade of yarn are wound uniformly tight, thus insuring a uniformly finished product.

The same tension can always be duplicated at a future time by setting the indicating meters at the value selected for a given grade of yarn.

When the desired tension has once been determined for a given grade of yarn, the human element is eliminated for all future operations on that particular yarn.

Open gearing is either eliminated or simplified by being reduced to a much lower requirement.

Frictional losses in slipping clutches and other mechanical types of drives are eliminated.

The multi-motor slasher drive eliminates the mechanical frictional clutch. Your maintenance man can tell you how much this will save. There are no bevel gears or line shafts. You reduce friction and eliminate overheating. You don't pay for wasted power. Lubrication and alignment problems are reduced.

Mr. Lane's report concluded: Two big points about multi-motor drives keep maintenance at a minimum. (1) They're automatic and (2) they're smooth running. And all the apparatus is built specifically to stay on the job a long time without trouble. The electrical circuits are simple and, after installation, you can just forget about them. The whole drive will rarely need more than routine maintenance.

A mill representative of Bemis Bros. Bag Co., at Talladega, also took the floor to relate that plant's experience with multi-motor slasher drives.

"We get about five per cent more yardage per loom beam with a resulting decrease in stoppage and increase in efficiency," he said. "Also, the wind is more uniform with an estimated increase of five per cent in yardage. Other than the more uniform wind and increased yardage, there is no appreciable difference. However, cost savings will be realized through lowered slashing expense and decreased warpouts resulting in higher weaving efficiency."

Avondale Mills, at Sylacauga, reported "a better slasher efficiency where multi-motor drives are used due to the fact that we are getting much more uniform beams from end to end and there is no jerking on this slasher to weaken or damage the yarn in starting up or stopping or the belt slipping, as experienced with the old drive.

"The uniformity of the tension on the beam and the absolute control of the tension is one of the best features of this drive. You can put more yarn on the beam. You can also make better beams because the drive is smooth as can be, even at zero tension. We recently ran a perfect warp of 264 ends—not one end broke.

"We feel that the expenditure for this drive is justifiable both from the standpoint of lower cost on slashing and increased weaving efficiency. We have been running the multi-motor drive approximately 18 months and have had no work stoppage or work done on this drive, other than regular maintenance such as oiling and cleaning. We know definitely that our warps from the multi-motor drive slasher have given us better weaving efficiency."

At the Avondale Mills, Pell City plant, the slashers were modernized with new fronts, larger cylinders and new drives. The over-all efficiency was increased by perhaps 60 per cent. The need at that plant was for a better drive which would enable mill technicians to utilize an increased drying surface made possible by larger cylinders.

A joint report from the Pell City and Sylacauga plants of Avondale Mills revealed that "We make a more uniform beam with the multi-motor slasher drive. We don't use as much weight on the press roll as with a friction drive and the tension is increased to give a more uniform layer of yarn. We put approximately 7½ per cent more yarn per beam than we did packing the yarn on the beam with the press roll.

"We don't necessarily maintain better quality warps throughout the entire set. We had good warps before we used these slasher drives and we have good warps now! We don't have trouble at any particular point in a slasher set.

"The expense for this drive was justified by increases in our slasher efficiency and a corresponding decrease in cost by reducing our slasher hours and man-hours. Our weaving efficiency remained about the same as before the change. However, we needed the drives as part of an over-all program."

Pepperell Mfg. Co. reported that multi-motor slasher drives apparently did not increase slasher efficiency "unless used with moisture control which would keep the slasher operating at maximum speed and still insure proper drying."

"It enables us to wind a more uniform beam," the Pepperell statement continued. "Tension from calender roll to beam is constant from empty beam to full. There is no increase in the amount of yarn put on the loom beam, unless the beam is wound too hard, which would defeat part of the purpose of the drive.

"Better quality warps can be maintained largely because tension can be controlled better from the section beam to the loom beam.

"It is difficult to justify the expense of this drive on paper, because it is possible to make about as good warps by very strict supervision on slashers having conventional drive, but it does lessen the chance of operative errors. So unless a mill is already getting top weave room efficiency, a multi-motor drive will probably enable it to make better warps, resulting in improved weaving and money-saving."

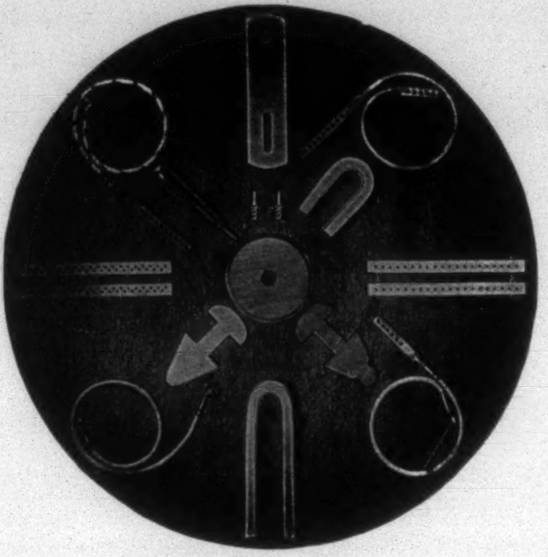
Dwight Mfg. Co. reported an increase in slasher efficiency, better quality warps, more uniform beam and increased amount of yarn per beam resulting from the use of multi-motor slasher drives.

Among the mills reporting no experience with multi-motor slasher drives were Tallassee Mills, Textron Southern, Inc., Langdale Mills, Huntsville Mfg. Co., Fairfax Mill, Lanett Mill, and Russell Mfg. Co.

A show of hands indicated that no one was dissatisfied with multi-motor slasher drives.

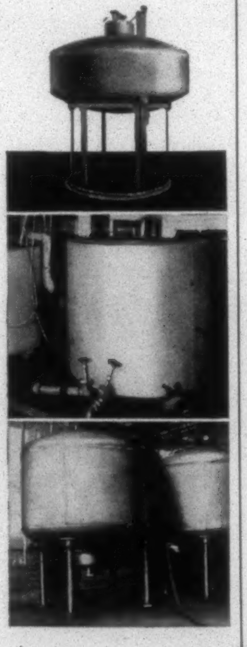
The next discussion was on methods of covering squeeze-

RICE DOBBY CHAIN CO.
MILLBURY, MASS., U. S. A.



Southern Representative
R. E. L. Holt, Jr. Associates
Jefferson Bldg. P. O. Box 1474 Greensboro, N. C.
[READY TO SERVE YOU]

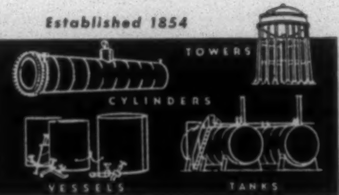
Kettles . . Kiers . . Vats
for
TEXTILE LIQUIDS



- Cole builds vessels to your specifications — dye-vats, kiers, starch-kettles, acid tanks, jib boxes, or other processing vessels for the finishing and dyeing industry . . . in stainless steel, nickel-clad steel, or of standard steel lined with monel metal. Our long experience in the design and fabrication of vessels for the textile industry may be of help to you. Write for latest Cole catalog—"Tank Talk."

R. D. COLE
MANUFACTURING CO.
NEWNAN, GA.

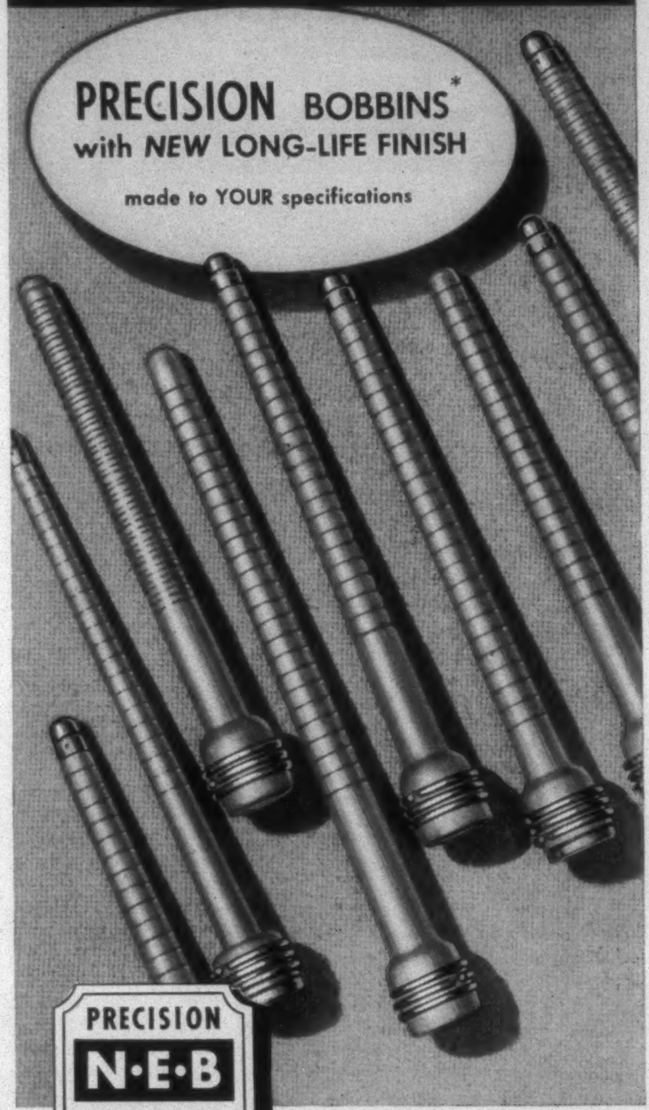
Established 1854



Precisioned to Size — Precisioned for Concentricity
Precisioned for YOUR Spindles . . .

For COTTON and SPUN RAYON

PRECISION BOBBINS*
with NEW LONG-LIFE FINISH
made to YOUR specifications



PRECISION
N·E·B
BOBBINS

*For SILK and SYNTHETICS — COTTON and SPUN RAYON — WOOLENS and WORSTEDS

Every NEW ENGLAND BOBBIN is tested for concentricity; for smooth, vibrationless running at high speed; to reduce spindle wear. The smooth New LONG-LIFE Finish developed by New England Bobbin & Shuttle Co. withstands heat up to 125°, chemicals in detergents, hard and continuous use. Lasts longer than conventional finishes. Include NEBs in your next requisition — your next order — and compare!

NEW ENGLAND BOBBIN
& SHUTTLE CO.
Makers of PRECISION *Automatic Loom Bobbins*
NASHUA, NEW HAMPSHIRE

Representatives:

HENRY H. HERSEY
Norwood Place
Greenville, S. C.

ARTHUR W. HARRIS
443 Stonewall St., S. W.
P. O. Box 1982, Atlanta, Ga.

H. W. CURTIS
735 W. Crescent Ave.
Allendale, N. J.

THE CHARLOTTE SUPPLY CO.
Charlotte, N. C.

Export Agents
VANDERBURGH & CO., INC.
25 Beaver Street
New York 4, N. Y.

HARRIS & UNDERHILL
446 Statler Building
Boston, Mass.

rolls and the advantages of such methods over other methods tested or used.

A representative from Pepperell Mfg. Co. reported that "on our high-speed slashers, we use yarn-wound squeeze-rolls because it is impossible to get a smooth roll with cloth.

"Our method of winding is as follows: three ends of jute yarn—two layers; five ends of cotton yarn—ten layers; three ends of wool yarn, two ends of cotton yarn—six layers; five ends of cotton yarn—two layers; three ends of wool yarn, two ends of cotton yarn—two layers.

"The squeeze-roll is dressed about every 48 hours, using two layers of five ends of cotton yarn and two layers of three ends of wool and two ends of cotton. About every four months this covering is cut off and rolls are rewound.

"Our rolls are so arranged that their position can be easily reversed so the roll on the back is wound each day, run in this position until the next day, then reversed.

At Dwight Mfg. Co.—We clean roll off and paint with white lead, then fill the size box half full of water. We add size to bring up to regular level. Our method of winding is: five ends of 4½ cotton yarn, four narrow layers; two ends of wool yarn, five narrow layers; five ends 9½ cotton yarn, two narrow layers; two ends wool yarn, five narrow layers; five ends 4½ cotton yarn, two narrow layers; two ends wool yarn, five narrow layers; five ends 9½ cotton yarn, two wide layers; two ends wool yarn, two narrow layers; two ends 9½ cotton yarn, two wide layers.

You should brown in this roll for about 48 hours then wind every 48 hours as follows: two ends of wool yarn, two narrow layers; two ends of 9½ cotton yarn, two wide layers. The back roll is wound and browned in for 24 hours; then it is turned to the front and the new back roll is wound.

Methods of covering squeeze-rolls at other mills are as follows:

Tallassee Mills—The squeeze-rolls are turned off smooth before they are covered. The rolls are painted with a good paint before building them up. To start building up the roll, six strands of jute yarn for two rounds are used, then 8s cotton yarn for two rounds and finished with one strand of 10.5/3, six strands of grade slasher roll worsted yarn and four strands 8/1 cotton yarn. We re-cover after about three or four shifts or as needed with one wool and four cotton ends. All this is done in boiling water except the first operation of putting on the jute yarn which is put on dry. We have found this method better for our set-up than the wool blanket method because it is less trouble to put on and does a better job.

Lanett Mill—We use synthetic rolls in the back position. On the finisher rolls, we use a brass-covered core and cover with about six yards of cloth and a six-yard wool blanket. In putting on the new blanket we take off the old blanket. Then we put on as much of the usable old blanket, as we have left, over the new blanket where it is run for a few days. This is the only method we have used.

Avondale Mills, Sylacauga—For our particular weaves, we use wool yarn and cotton for covering our squeeze-rolls. We dress these rolls at a definite time, every 16 hours, using two strands of wool and one of cotton, making a complete traverse across the roll, then break out the two ends of wool and run one traverse of cotton on it. In starting off a new roll we cover the roll with several layers of jute yarn to give us a cushion, then come back with the two ends of wool and one of cotton to get a good coverage over the jute. This is usually about four trips back and forth. On the last traverse, we break out the wool and run one end of cotton. Since we run a lot of colored goods, we have found that the yarn-wound rolls are much better than blankets. This eliminates a lot of blanket marks on colored warps. We also run gray yarns on these from squeeze-rolls.

Bemis Bros. Bag Co.—We use two three-yard pieces of wool to cover one roll. When necessary to change wool, the top three yards are thrown away, the bottom three yards are taken off and new wool is placed next to the roll then covered with the used piece taken from the bottom.

At Textron-Southern, Inc.—The squeeze-roller has been metallized with copper to stop rust. We paint our squeeze-rolls with a heavy coat of white paint and let it dry until it is very sticky and will not let the cloth slip. We paint one round of heavy sheeting on the roller and then add three more rounds of sheeting. We prefer all four rounds of sheeting in one piece. We put our wool flannel on in two pieces, three yards each. When the outside piece wears down to the inside piece, we take the inside piece off and put a new piece on the inside, next to the sheeting, and put the inside piece on the outside. Because of this, we never have to run a new blanket for the finishing roll. We use burlap for back roll. We also find it saves time over the method of changing flannel from back roll to front roll.

Langdale Mill—We have five slashers that are equipped with synthetic squeeze-rolls on back, two slashers have five yards of 17-ounce nylon wool blankets on the finishing rolls and three slashers have thread-wound wool on the finishing rolls. All the finishing rolls are brass rolls and have a knurl finish.

We use the following method to cover wool blanket rollers: A three-yard piece of No. 12 cotton duck cloth is put on roller, then a five-yard 17-ounce nylon wool blanket is wound on the roller. We do not paint rollers, since they are made of brass and will not rust. When a new blanket is put on the roller, we put the old blanket on top of the new blanket and run the slasher until new blankets get set to roller (approximately 24 hours), then the old blanket is taken off. We make a daily check and trim blankets as needed. We run about 150,000 yards per blanket.

The following method is used to place wool and cotton yarn on the roller: We have a traverse mechanism attached to size box with the traverse directly over the finishing roll. It is driven from the back roll by a sprocket gear and chain. The traverse length is the same as the roller length. We put four traverse lengths of approximately 220 yards of 10/7 cotton yarn on the roller for a base, then two ends of 3/10/50, 6s white Bardford-spun worsted wool yarn and one end of 2/7 cotton yarn wound together on top of the cotton base (3,600 yards of yarn). The 2/7 cotton yarn is used for a binder for the wool yarn. We redress these rollers every 32 hours by putting two traverse lengths of yarn on the rollers (approximately 110 yards).

We have used three ends of wool but a test was run on two ends of wool and one end of cotton and the results showed about the same as the three ends of wool. The cotton end is used as a binder to the wool. The redress schedule for yarn-wound covering was derived from several tests of traverse lengths put on the roller. A good finish and less shedding was experienced by using our present schedule. We get a better finish on the blanket roll and less shedding by using an old blanket on top of the new blanket until the new blanket gets set to the roller.

At Huntsville Mfg. Co.—A rubber roll is used on the back. Two pieces of flannel are used on the front. When the top piece is worn both are taken off and a new piece is put next to the roll. The piece that was formerly next to the roll is then put on top.

Buck Creek Cotton Mills, Siluria, Ala.—Moves the blanket from the back to the front roll and re-covers the back rolls about every 120 hours.

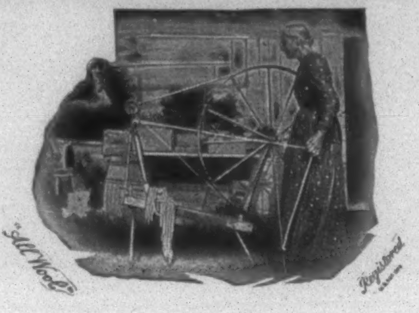
At Fairfax Mill—Six yards of duck are used for covering squeeze-rolls and three yards of wool slasher cloth are used for the finisher-roll. Back rolls are rubber-covered.

The last slashing question that came up for discussion dealt with mill experience with hot air slashers. Not many mills reported experience with them.

However, two fuel oven slashers at Bemis Bros. Bag Co. were reported to have increased production about 30 per cent over the conventional three-cylinder slasher. No appreciable difference in cloth defects resulted from the slashers, and it was found to be 18 per cent cheaper to dry sized yarns in this way than with steam generated by coal. The company estimated maintenance costs for the oven slashers as approximately twice the cost of that for conventional slashers.

At the end of the slashing discussion, the executives took a short break before discussing four main weaving questions.

Since it was found that more than the proportionate share of time had been spent in the slashing discussions, Homer Roberts, general manager of Anniston Mfg. Co., and leader of the discussion on weaving, found it necessary to



KNOXALL

Roller, Slasher and Clearer Cloth
Endless Blankets
Rayon Slasher Jackets
Endless Revolving Clearers

EDWARD H. BEST & CO.
EST. 1888 BOSTON, MASS. INC. 1901

ATLANTA, GA.
W. C. HAMES
185 Pinecrest Ave., Decatur, Ga.
Dearborn 5974

NEW YORK
H. W. CURTIS
735 W. Crescent Ave., Allendale, N. J.
Allendale 1-3521

GREENVILLE, S. C.
WILLIAM J. MOORE
P. O. BOX 1970 TEL. 5-4820

LAMBETH PRODUCTS
FOR SPINNING, TWISTING, SPOOLING, WEAVING

Basket weave spinning tape
weave spinning tape
Herringbone
LAMBETH RUBBER LUG STRAP
Basket weave twister & spooler tape
Double loop hook bands for cards, twisters, spoolers, etc. (all lengths and diameters)
Mule ropes all sizes diameters
Braided spindle banding for mules, etc.

LAMBETH ROPE CORPORATION
Plants at New Bedford, Mass. and Kings Mountain, N. C.

LOOM REEDS

Finest Quality For weaving every fabric

Specializing in STAINLESS STEEL REEDS

also CHROMIUM PLATING

Diamond Hard — Velvet Smooth

GREENSBORO LOOM REED COMPANY, INC.
PHONE 5678 **GREENSBORO, NORTH CAROLINA**

hurry mill representatives through much of the latter part of the program.

Below is presented in question and answer form a cross-section of answers to the four weaving questions as reported to the secretary-treasurer of the Alabama Textile Operating Executives.

Question 1—Give your experience with metallized take-up rolls.

Tallassee Mills—We have one 40-inch P Model take-up roll, metallized. This roll has been running about three months on 36-inch 15-ounce duck and looks good.

Dwight Mfg. Co.—We have approximately 1,500 metallized take-up rolls in operation. Our experience with these rolls has been very satisfactory. Only two have required replacing since we started using them about two years ago. One was for slippage and one for rust which came up through a nail hole.

Textron Southern, Inc.—We have not had any experience with metallized take-up rolls. At present we cover take-up rolls with carborundum. We glue it to the metal take-up rolls, pulled tight on the lathe and tacked on both ends. We have used this method for five years. We find that we get better than 90 per cent more life out of this method than we did with metal covering, and so far as holding proper tension on the cloth, it answers the purpose equally as well or better.

Pepperell Mfg. Co.—We have been running about 200 looms with metallized take-up rolls for six months and have found them satisfactory in every respect. Besides holding the cloth satisfactorily, this method eliminates the necessity of re-covering the rolls.

Lanett Mill—We have not had any experience with metallized take-up rolls. We use a thin fillet covering. Best results are obtained by nailing on each end and not all the way across. This eliminates breakage. It gives good results. Re-covering is at a minimum.

Avondale Mill, Sylacauga—We have had a few looms running with metallized take-up rolls for about 16 months, on 11-ounce denim. The rollers show no wear at all.

Shawmut Mill—We have tried metallized take-up rolls and have had some success with them. We think that the type of fabric involved enters into the success of such rolls.

Bemis Bros. Bag Co.—We have 100 looms with metallized take-up rolls. These rolls are very satisfactory for most cloth construction. We are metallizing other rolls as rapidly as they develop any trouble.

Question 2—What is the best method for installing and caring for shuttles?

Tallassee Mills—We do not have a shuttle man. Our loom fixers put in new shuttles.

Dwight Mfg. Co.—Our loom fixers make all the necessary replacements of shuttles after the second hand has inspected the shuttles. After the fixer has installed the new shuttle, the loom is inspected by the second hand, who checks all motions on the loom and the fixer is required to make the necessary adjustments to meet the supervisor's inspection.

Textron Southern, Inc.—When the second hand or head loom fixer writes an order for a new shuttle, he records the loom number in the shuttle book. After the loom fixer has installed the shuttle, the head fixer checks the loom to see if it is in proper condition. The following day, the second hand checks the shuttle to see if they are running properly. We check looms with 72-inch, 18-inch and 12-inch straight edge to see that they are aligned. Our overseers spot-check the shuttles to see if the system is carried out properly. Each shift fixer checks one-third of his shuttles each week (we are running three shifts). He checks for such things as loose springs, quills out of alignment with shuttle eye, worn springs, worn bristles and fur; he also checks shuttle springs and eye bolts to see that they are not cutting reeds. The second hands and head fixers check up to see that these inspections are made weekly.

Pepperell Mfg. Co.—Our loom fixers look after the shuttles while they are on the job. When a new shuttle is installed, the loom is lined, and new pickers and new binder leather are put on. Each section is divided so that the fixers on each shift have a certain number of looms to check. Second hands, in turn, check behind the fixers.

Lanett Mill—We line lay with long straight edges. We use 18-inch and 24-inch straight edges to line boxes. We re-cover boxes, put on new pickers, where needed, and check parallel of shuttle. This is then inspected by the second hand. A "shuttle slip" is made out by the loom fixer and checked by the second hand. This is then filed in the office so that we can always go back and find who started up the loom and check for bad work on complaints from other shifts. Shuttles are inspected weekly by second hands and write-ups are made of all findings. Fixers make the necessary repairs. Fixers are also required to sand-paper and groove all shuttles with lard oil and tallow rags each week.

Avondale Mill, Sylacauga—We maintain a card system for checking shuttles. We first check rocker shafts, crank arms, parallels, set lugs, protection rods, frog brakes, etc. All items are checked off on the card and the checker signs his name. Loom-fixers have a definite number of shuttles assigned to them for upkeep and inspection. They inspect these shuttles once a week. The foreman inspects the shuttles once a month. We do not have a shuttle man.

Shawmut Mill—Each time a shuttle is issued from the supply room a tag is issued with it and the number of the loom that the shuttle is put in is recorded. The fixer who installs the shuttle is responsible for (1) lining and squaring reed; (2) lining box plates and back; (3) checking leather on binders; (4) checking pickers and parallel. The supervisor follows up to see that proper care is exercised in installing the shuttles.

Langdale Mill—The loom-fixer installs the shuttles on the loom, checking the following points: (1) reed square to race plate; (2) boxes aligned with reed at either end; (3) picker parallel to new shuttle; (4) all worn pickers replaced; (5) timing of pick motion; (6) replace worn binder and front plates; (7) set filling feeling to new shuttle; (8) set thread-cutter, shuttle feeler and transferrer to new shuttle. Then there is a follow-up check by the second hand to see if the shuttle is operating properly in the loom. We also have a shuttle man who has the following duties: He bores holes for bristles in all shuttles—maintains necessary supply of fur and glue for use in shuttles—re-covers, when necessary, all binders and front plates—re-bushes binders, as necessary.

Fairfax Mill—We have a standard set-up for our looms. So far as settings, lost motion, power adjustments and main parts are concerned, the fixer is required to go over the loom and get it up to this standard. The second hand checks it before he will issue an order for a new loom. The fixer checks all shuttles each Monday and applies a shuttle lubricant.

Question 3—What savings have been proven by using re-wound filling?

Tallassee Mills—We do not have any actual figures on the per cent of increase in weaving efficiency which has resulted from the use of re-wound filling. But we feel that we are able to get a better bunch more consistently, a firmer quill of filling, and that it takes less time for the battery hand to load the battery.

Pepperell Mfg. Co.—The savings that can be shown by rewinding filling depend to a large extent on yarn count. On 13/1 filling we estimate enough savings to pay for the quiller in two years. These savings are derived from such benefits as less thread waste because there is less bunch waste and bad filling, better quality cloth, and cheaper inspection. Of course, some of these savings are offset by the extra cost of winding and quilling but there is still an over-all savings.

Avondale Mill—On our re-wound filling, we think we have profited by changing from spinning filling. For one thing, we don't think we have as many filling breaks. And a battery hand can fill one-third more batteries on quiller filling than on spinning filling. We get much more uniform bunch on quiller filling.

Question 4—Explain methods used to control the following types of waste: (a) warp waste; (b) filling pieces; (c) dirty and oily filling.

Pepperell Mfg. Co.—Warp waste is weighed and charts are kept in the weave room office of the amounts. Warps are run as far as possible before the looms are cut off and every effort is made to get a good start-up at the slasher. In regard to filling pieces, battery hands are required to replace them from quill cans in the battery. This is checked on by quill-haulers and strippers who report to the second hand if the battery hands leave pieces in the can. All quills of oily or dirty filling are checked at the end of the shift by weave room second hands. They are counted and charted.

Lanett Mill—Weavers are required to run warps as near as possible off the beam. This remaining waste is stored in boxes by warp men and is then taken to the waste house by waste haulers, where it is weighed and recorded. The weight figures come back to the weave room overseer who compares them with standard waste figures which have been set up for us to shoot at. We have very

You'll Get
Top Efficiency and
Performance With The
SLIP-NOT

CHECK STRAP

The Nuform VICTORY CHECK STRAP will not only last longer than an ordinary strap but it will materially improve checking quality on high speed looms.

NOTE THESE FEATURES

The Nuform VICTORY CHECK STRAP, as illustrated with single helper, will eliminate breakage on the forward stroke, caused by the shuttle check. The Nuform VICTORY CHECK STRAP is also available with a double helper.

The Nuform VICTORY CHECK STRAP will lengthen the life of the check strap on the X series looms as much as two to three times.

The Nuform VICTORY CHECK STRAP (Patent No. 2,374,042) is individually designed to your particular specifications.

The Nuform VICTORY CHECK STRAP is made in left hand and right hand for Draper looms. A special right hand Nuform VICTORY CHECK STRAP is available for the Crompton-Knowles S-6 loom.

The Nuform VICTORY CHECK STRAP is made of the same high quality SLIP-NOT hair leather as our regular Nuform Check Strap. It is identified by its yellow colored top edge.

Write or Wire for Full Particulars and Estimated Cost

SLIP-NOT
BELTING CORPORATION
KINGSPORT • TENNESSEE

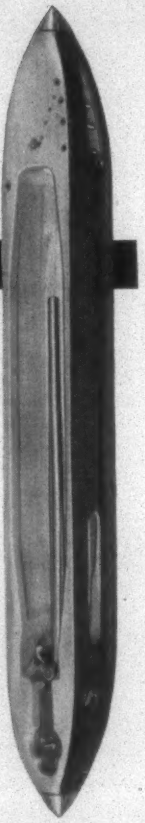
Manufacturers and Distributors of
Power Transmission Equipment

Running Mates for Increased Production

Watson-Williams
Pick and Pick Shuttles
Automatic Shuttles
on W-3, C-4 and C-5 Convertible Looms

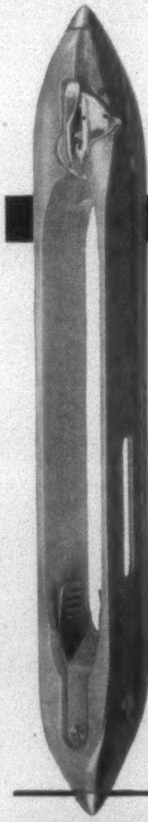
PICK and PICK

Watson-Williams Spindle Shuttle (shown at right) with Patterson Tension, holds a 9½" paper tube, and is becoming increasingly popular on W-3, C-4 and C-5 Convertible Looms for the weaving of pick and pick fabrics.



AUTOMATIC

Weavers on all three looms, when operating automatically, are equally enthusiastic about Watson-Williams Automatic Bobbin-Changing Shuttle (illustrated at the left) which holds an 8¾" bobbin. It may be equipped with Watson-Williams 15L Cotton Eye, 15L Center Tension Eye, or W15L Rear Tension Eye.



Ask your Watson-Williams representative to tell you the full story of these two shuttles as they may well apply to your weaving production.

WATSON-WILLIAMS MFG. CO.
MILLBURY, MASSACHUSETTS

SOUTHERN REPRESENTATIVES:
Watson & Desmond, Box 1954, Charlotte, N. C.
Arthur J. Bahan, 810 South Carolina National Bank Bldg., Greenville, S. C.
John Wyatt, Jefferson Bldg., Greensboro, N. C.
NORTHERN REPRESENTATIVE:
Guy C. Burbank, 32 Beaconsfield Rd., Worcester 2, Mass.
WESTERN REPRESENTATIVE:
Francis B. Wells, 805 Linwood Avenue, La Porte, Indiana

little filling waste because of the type of feeler we use. Because of this feeler we do not have pieces thrown out of the loom. We rotate filling daily. By doing this we think that we hold down the pieces thrown in the back of the battery box by the battery hand. We require that the pieces be run up in the looms as fast as they accumulate. Dirty and oily filling is used in starting up new warps so far as it is possible without too much loss of good cloth.

Avondale Mill—Where warp waste is concerned, we watch our warp running out. We believe that if we have a warp with more than two yards of warp on the beam which won't run, this should be shown to the slasher tender by the second hand or the foreman. On our filling pieces, we require all loom-fixers to check for large bunches in quill cans once each shift. In regard to dirty and oily filling, we make our battery hands responsible for filling on the floor. An hour before the change of shifts, each battery hand brings all the filling off the backs of the looms to each second hand. We find that by holding the battery hand responsible for all oily filling which comes off his job, the battery hand watches more carefully for the filling which drops on the floor. This practice has really brought our filling waste down to a minimum.

Shawmut Mill—For control purposes, our warp waste is broken down as (1) warp mop back, and (2) warp thrum mop. Warp mop back consists of the extra ends in the warp, loose ends, doublings, singlings, etc. When it is taken off the beam, this yarn is returned to the warp and beamer room where it is weighed and charged to the waste report. Each week, this waste is compared with a standard waste rate as well as with the previous week's report. Should this figure become excessive, all personnel are told that necessary action must be taken to reduce it. Warp thrum mop is waste which results when a new warp is tied in. It is the waste pulled over the front of the loom. Here, just enough yarn is pulled over to start up the loom on a new warp. This waste, too, is weighed and charged to the weave room. If this waste becomes excessive it shows up on the waste report and necessary action is taken to curtail it. If the warp and beamer room runs a warp too long, the weave room runs the warp out and the cloth room sends a report to the warp and beamer room with the request that this situation be corrected.

Filling pieces are collected and weighed daily by shifts. These weights are observed by the supervisors and checked against a standard. Any loom throwing out pieces or breaking quills is corrected immediately. On the hand-change looms, the weavers are continuously reminded to run the filling down as low as possible. Here again, the waste weights are checked against the standard and past week's averages. The following rules keep our oily filling low: (1) We pick up filling as soon as it is dropped on the floor; (2) we keep the floor around and under the looms as clean as possible; (3) daily reminders of the supervisors keep filling haulers and battery hands aware of the necessity of keeping filling off the floor; (4) oily filling is weighed daily and checked against standard and past averages.

Langdale Mill—A close check on the amount of warp waste is obtained by making one man responsible for hauling out this waste and recording the poundage on a daily waste report. Weekly waste reports are sent the overseer of weaving and a graph is posted weekly so that the trend of the amount of waste may be easily seen. The graph shows the per cent waste average for the previous year as well as the standard per cent expected. When a defective warp must be cut out at the loom, a report is sent to the overseer of slashing and beaming, giving details as to the kind of defect, the number of yards lost, and the name of the tender of the slasher or beamer responsible. A separate record is kept on the waste which results from defective beaming or slashing.

In regard to filling pieces, weekly tests are made on every filling frame to see that the yards in the filling bunch are not above standard for the width loom in which the filling is to be run. At the same time, the amount of yarn on the quill is weighed so that the standard ounces per quill will be maintained. The standard for ply filling is two ounces and for single filling 1.75 ounces. Records are kept on the amount of filling waste. Weekly reports are sent to the overseer of weaving and the per cent of waste is charted for observation. Periodic checks of the looms are made for feelers which are throwing out pieces.

To curb dirty and oily filling waste, the filling boxes on the looms have been redesigned so that the doff trays from the filling frames may be placed on the loom to reduce the handling and dropping of filling on the floor. We have made progress in training the filling haulers and battery hands to be careful in handling the filling so that the amount dropped may be less. Dirty and off-ply filling are woven into burlap. This does not decrease the amount of dirty filling but it does make it of value.

Presiding at the meeting was J. W. Patterson, superintendent of Tallassee Mills, Tallassee, Ala., and general chairman of the Alabama Textile Operating Executives. Seated with him on the speaker's platform were Henry Lanier, general superintendent of Cowikee Mills, Eufaula, Ala., who is vice-general chairman of the group, and Ben H. Crawford, Southeastern Engineering Co., West Point, Ga., the organization's secretary-treasurer.

Bleaching, Dyeing & Finishing

Radioisotope Technique In Textile Technology

By C. E. CROMPTON, Ph.D., United States Testing Co., Inc.

THE significance of atomic energy and its accomplishments are on everyone's lips these days. I would like to quote a recent statement by Gordon Dean, Chairman of the A.E.C., in which he said, "We have recently entered a room, the door to which was labeled the atomic age. We are in that room and we have found it so large and so dimly lighted that we cannot begin to perceive its size or to recognize what is in it. All we can do is go forward as boldly and as wisely as we can. I think one of the great responsibilities we assumed when we gained atomic world leadership was to lead the way."

Aside from the military aspects of this field, the most valuable single contribution to progress is the radioisotope technique by which we can follow the movement and reactions of individual atoms and molecules. The importance and growth of the radioisotope technique in industry is paralleled by a similar growth in many other fields of research and development. It has already been established as having greater sensitivity, specificity and versatility than any other tool known.

I could spend an entire evening giving illustrations of how radioisotopes could be used to solve problems related to the physical-chemistry of dyeing, on the study of textile fibers themselves, on how to measure the uniformity and durability of surface coatings and mothproofing agents. While these and many more suggestions have been made the real question is "What has the textile industry done with this opportunity?" The answer is rather disappointing since little has been done in actually applying this technique to your problems. Some of the work that is being done and has been suggested is worthy of more detailed discussion.

The Textile Research Institute at Princeton carried out some interesting work on the absorption or adsorption of dye and salt ions on fibers. In applying the chemistry of dyeing, a major problem is the distribution of the dyes, salts, wetting agents, solvents, etc., between the bath and the textile under non-exhaustive conditions. These workers used anthraquinone blue which was sulfonated with a sulfur-35 tagged sulfonating agent. Sulfur-35 has a very weak beta particle. The salt used was sodium bromide in which both the sodium and bromine were radioactive. The sodium in this case was sodium-22 which has a long half life whereas the bromine involved was bromine-82 which has a half life of 34 hours. Both of these isotopes emit energetic gamma radiation. The radioactivity of the fiber in the dyeing bath could be measured periodically to determine the rate at which these isotopes were adsorbed. The total activity measured included sulfur-35, sodium-22 and bromine-82. When a thin shield was interposed between the fiber and the counting tube the sulfur 35 activity was prevented from reaching the detector tube. Hence the S-35 activity was obtained by difference. Since the bromine has a short half-life, the sodium radioactivity is all that remains after storing the fiber samples for a couple of weeks. In this manner, the rate and amount of adsorption of both sodium and bromide ions and the anthraquinone dye were accurately measured. They found that in two hours the bromide ion on the fiber exceeded the dye, but that in 20 hours the dye had replaced the bromine to a great extent and had exceeded it in amount on the fiber. The great selectivity of this method then permits you to investigate the mechanism of dyeing and of any other textile process in which there is interest. The fastness or retention of various dyes under any set conditions can be accurately measured.

A recent newspaper article described the use of radioisotopes by England's Wool Industries Research Association and indicated that they were gaining new information on the physical chemistry of dyeing processes and the structure of the wool fiber itself and its ability to adsorb or absorb other chemical species. This same type of research can be pursued in the fields of cotton and synthetic fibers.

Some rayon manufacturers have been troubled by the cratering of spinnerets—deposits of materials containing Ca, Ba, Fe, Al and others—build up around the spinneret holes. So far, the source of these deposits is not known accurately. The iron or calcium or aluminum may be introduced in several of the raw materials and have a different chemical form in each raw material. Therefore, the problem is to determine which route of entry is responsible for the deposit on the spinneret. By tagging the atoms of interest in each of the raw materials, in turn, it is possible to identify the source of the troublesome deposit.

In the xanthating process in making rayon, the sulfur in the fiber is partially removed in the coagulating bath and then the filament goes through a desulfurizing bath. It has been suggested that the completeness of removal of sulfur from the filament could accurately be measured by using CS^2 containing sulfur-35. Thus, on a pilot plant scale, the best conditions for removing sulfur could be explored and later incorporated into the full scale process. A radiation detection device could be placed near the filament emerging from the desulfurizing bath and the radioactivity automatically recorded.

The sensitivity of this radioisotope technique is well illustrated by an often quoted example in which the distribution of a lubricant on rayon yarn was measured. The finish contained sodium oleate so radioactive sodium-24 was used to tag this particular compound. The uniformity of distribution was measured by taking samples of the yarn which were only one cm. long and weighed only 0.2 gms. The amount of radioactive sodium contained on each sample was 0.04 micrograms.

We mentioned earlier that beta radiations could penetrate only modest thicknesses. Each thin layer of matter absorbs a certain amount of radiation and if successive layers are added, the radiation reaching the geiger tube gradually decreases. You can see therefore that this apparatus can function as a thickness gauge. A radioactive source is positioned underneath of the sheet whose thickness is to be measured and the counting tube is directly overhead. If this is a moving sheet of metal, plastic or rubber film, the thickness may be recorded automatically on a graph.

It is well and good to sit back and marvel at a powerful new scientific tool and contemplate the day when your particular problems will be solved. That, however, is not how progress is made. The problems always exist and the tool is waiting to be used. There are a number of commercial laboratories and foundations offering to assist you by supplying the technical know-how to use radioisotopes in the solution of such problems. This lack of available training has, up to the present time, been a barrier to the wide use of radioisotopes. Get together with someone in the field of applied radioactivity and talk over your problems. This technique doesn't pretend to be a cure-all but, if you are to derive the benefits that are latent in it, you must take advantage of this opportunity. There is a great need for pioneering work in this field and so far, each of the industries that have investigated this method have produced outstanding results.

I would like to close with another brief comment of Gordon Dean's which seems to summarize very closely the attitude which industry is beginning to reflect toward the radioisotope technique. "When we talk about the golden promise of the atomic age, there is one extremely important factor which we must take into account . . . that many of us often tend to forget . . . basic research. Today we make our estimates and guesses and plot our course on the basis of the things we know, and from this vantage point we can see only so far into the future. What the future holds we do not know, but we can attempt to find out and this is what we are doing in the great atomic research centers, in universities and private laboratories of the country."

This is the attitude that each industry must develop if it is to benefit from this new field. It may be that companies within the same industry may find it most profitable to join in sponsoring the early research on common problems. The fact remains that the impetus must come from industry itself.

The foregoing paper was presented before the Dec. 5 meeting of the American Association of Textile Technologists in New York City.

Maintenance, Engineering & Handling

Industrial Trucks At American Thread

ECONOMIES resulting from faster flow of material, savings in manpower and man-hours, and increased utilization of existing storage area, through the use of a powered industrial truck of the high-tiering fork type resulted, five years ago, in decision by management of American Thread Co. to extend this method of handling and storaging materials to others of its chain of mills in New England and the South. Today a small, but intensively used, fleet of powered trucks, both of the rider and hand-lead type, operate in seven of its mills, and additional installations are contemplated.

The pilot installation was made in the company's Willimantic, Conn., mill, where a 2,000-pound capacity, high-tiering fork truck was put into operation in the "active-cotton" warehouse, handling and storing incoming shipments of bales of raw cotton, and also bales of waste. One of the immediate benefits was in the unloading and warehousing of boxcarloads of cotton. Eighteen bales were being warehoused on the same floor area formerly occupied by six bales. Less manual effort in the operation was another immediate benefit, both to the company and to workers, while the time for the complete cycle of unload-move-and-warehouse was more than cut in half. Two men, utilizing the fork truck, were able to completely unload and warehouse two carloads of cotton bales in half the time required by a five-man crew to unload and warehouse one carload, employing manual methods and utilizing warehouse trucks.

Also, by utilizing all vertical storage area in the company's three high-ceiling "active-cotton" warehouses, through the ability of the fork truck to raise a load to a height of 119 inches and deposit it in a pre-determined manner, workers were enabled to storage 324 bales of cotton in a "long" bay that previously had only held 108 bales, and 144 bales in a "short" bay that used to accommodate only 48 bales.

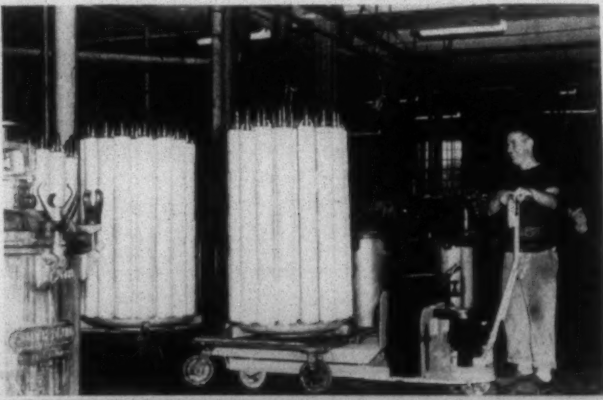
It was an operation such as this, performed at one of its mills, that helped convince management of American Thread Co. that in powered industrial trucks of the high-lift fork, and other types, economies in handling of material, in man-hours, and in warehousing could be effected in a substantial measure. From a pilot installation in its Willimantic, Conn., mill early in 1946, use of powered industrial trucks has been spread to all of company's mills in New England and the South. In this picture, a rider-type, powered, high-tiering fork truck, places a 700-pound bale of Egyptian cotton six-high in one of the high-ceiling "active-cotton" warehouses at the Willimantic spinning and finishing mill. Other powered industrial trucks handle material in special types of containers in process work, or load rail cars or highway-trailer trucks for inter-mill shipment.

Altogether, according to the firm's materials handling engineers, "between 1,500 and 2,000 additional bales could be placed in these 'active-cotton' warehouses, which amount formerly had been held in a 'Raw-Cotton-Storage' concrete warehouse awaiting movement to the 'active-cotton' area and thence into processing. Thus we were saved the additional labor and expense of a second handling of these 1,500 to 2,000 bales. We also found, on several occasions when large shipments were received, that we were able to warehouse as many as 2,400 extra bales."

The bales are stacked, horizontally, six-high, in a "locked" pattern to prevent side-sway. Under previous manual methods of handling and storage, the bales had been stacked on end, four across the face of a bay. In the company's low-ceiling "active-cotton" sheds—because of lack of headroom in which to utilize the lift-ability of the fork trucks—bales are still warehoused manually by means of hand-trucks, and are placed on end.

Shortly after the first truck was placed in operation a second with a capacity of 1,000 pounds was purchased. This was assigned to duty in the shipping department, loading boxcars with cotton shipments, and the company's over-the-road motor trucks which operate between the mills.

Two types of cotton, in several grades, in addition to synthetics such as nylon and rayon, are used at the Willimantic mill. American cotton, which comes in unsymmetrically-shaped bales, weighing approximately 550 pounds, and Egyptian cotton, the bales of which weigh approximately 750 pounds and are in compact bales. The lumps and bulges on the American bales make them difficult to tier. In addition American cotton is sampled bale-by-bale for



Hand-led, powered industrial trucks of the platform type are used in the dyehouses of various of the American Thread Co. mills in New England and the South, to move dolly-loads of thread to and from dyeing vats, as shown in this photograph. Overhead hoist is about to remove this dye-carrier of packages of yarn and immerse it in a dye vat.

magno·tronic

DUAL SILVER POINT — FULLY AUTOMATIC

FLUORESCENT STARTERS

—completely eliminate annoying blinking and flickering of dead fluorescent lamps!

GUARANTEED — FOR ONE YEAR!

This is a glow switch condenserless precision starter equipped with automatic thermal relay circuit breaker. The relay automatically removes the lamp from the circuit electrically when the lamp becomes deactivated and automatically resets upon interruption of the lamp circuit.

SIMPLIFIES — Replacement of defective lamp automatically recycles starter circuit. No buttons to push — no replacement of starter.

REDUCES COST — Magno-Tronic starters provide exact timing of electrode heating, preventing excessive loss of emission material, thus assuring maximum lamp life.

VERSATILE — Built to operate efficiently over an extended voltage and temperature range with absolute dependability.

SP-15-20 For use with 15 or 20 watt lamps.

SP-30-40 For use with 30 or 40 watt lamps.

SP-85-100 For use with 100 watt lamps.

Manufactured under
U. S. PATENTS

2298236	2239244
2159837	2333694
2339307	2341520
2334935	1849552

Other Patents Pending

INDUSTRIAL ELECTRONICS CORP.
80 BANK STREET, NEWARK 2, N. J.

BRYANT SERVICE

WESTINGHOUSE INDUSTRIAL AGENTS

for

MOTORS, CONTROLS, TRANSFORMERS

Motor Rewinding Our Specialty

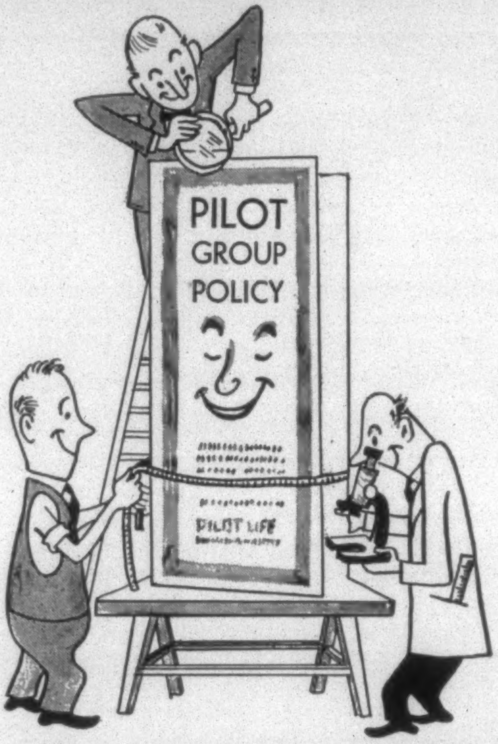
Expert Electrical Service to the Textile Industry for the Past Thirty Years

Bryant

ELECTRIC REPAIR CO., nc.

607-9 E. Franklin Ave. Phone 5-3466
GASTONIA, NORTH CAROLINA

PILOT'S GROUP PLAN MEETS ALL *YOUR REQUIREMENTS . . .*



When our group specialists in the field, and our group analysts in the home office, combine their knowledge and experience into formulating a group plan for you, you get a tailor-made, custom-built group plan, designed to meet all your requirements. Whether it be group life, group hospitalization and surgical benefits, or all of them combined into one great plan, a Pilot Planned group policy will satisfactorily cover all your insurance needs.

Before you buy, contact,

Group Division, Pilot Life Insurance Company

PILOT LIFE INSURANCE COMPANY

O. F. Stafford, President
GREENSBORO, NORTH CAROLINA

quality, the bales being set aside in the warehouse area awaiting the report on acceptability before being placed, either in reserve storage, or in process. Egyptian cotton, on the other hand, is sampled only ten per cent so that bales are immediately tired, by lot, in the warehouse, awaiting test reports. Bales of waste also vary in weight, cotton waste running approximately 700 pounds and the synthetics about 1,200 pounds. These bales are tired in a section of the warehouse, and are shipped out in carload lots.

In discussing the pilot installation at Willimantic, Thomas L. Griffith, the materials handling engineer, said: "Our findings here at Willimantic convinced management that powered industrial trucks, in various applications, would go far to increase efficiency of operation, lower man-hours assigned to materials handling and effect economies in many other ways. We were unable to work out an exact formula for all mills. Each presented its own problem, but basically, the powered industrial truck could be applied in many ways at each mill, especially when studies were made to co-ordinate, and as much as possible mechanize, the handling of material."

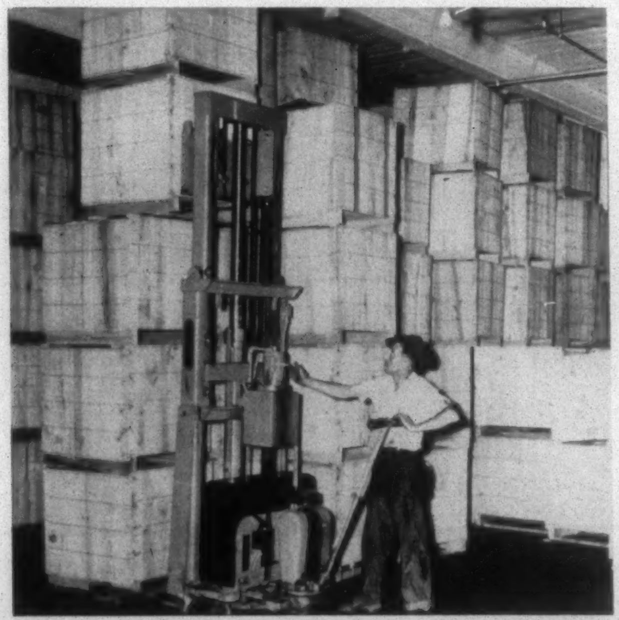
Following installation in other mills of the company of powered industrial trucks of several types, studies were made with a view to loading/unloading of shipments carried by the company's fleet of high truck-trailers. This led to adoption of a special type of collapsible container made of heavy wire. These containers, made to A.T.C. specifications, are 36 inches long, 28 inches wide, with an outside height of 28 inches, and an inside depth of 24 inches. Each container, or "basket," carries a vinyl-coated liner to protect its contents. The particular dimensions were chosen so that company trailers may be loaded three wide and three high, the 30-foot bed trailers accommodating 76 "baskets" and the 32-foot bed trailers, 81 "baskets," at full load.

Two containers at a time are worked into or out of the trailers by means of powered fork trucks, the average weight of a fully loaded container being 272 pounds. Average loading-unloading time of a full shipment is 28 minutes. When emptied, the containers, which weigh approximately 72 pounds each, are folded and strapped in loads of eight or ten, and returned to point of origin by the trailer trucks. About one-third of the trailer's area is taken by a return shipment of containers, but the remaining space is occupied by other material being shipped inter-plant. About 4,000 of these containers are used in all of the mills.

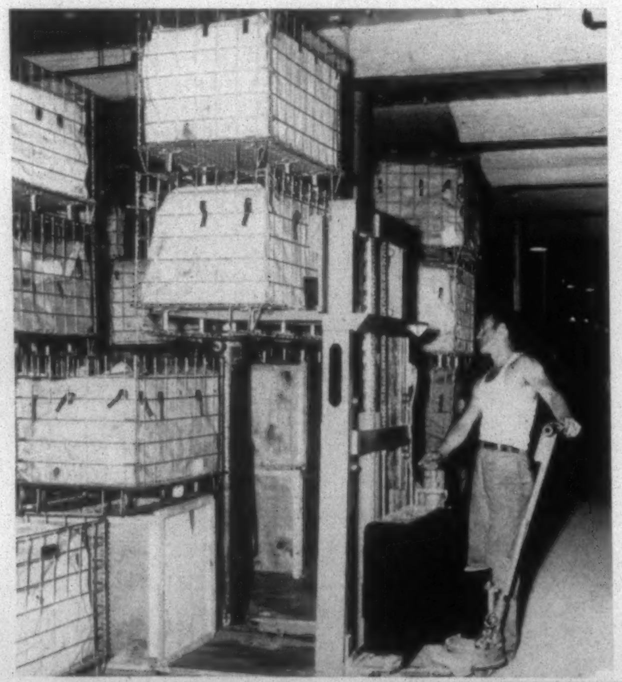
The Willimantic mill is one of four operated in New England by American Thread. The others are the Kerr Mill, at Fall River, Mass., a finishing mill, Merrick Mills, at Holyoke, Mass., and the "spool mill" at Milo, Me., where all spools used by the company are produced. Mills in the South are located at Dalton, Tallapoosa and Newnan, Ga., Clover, S. C., Troutman, N. C., and Bristol, Tenn. The latter is a finishing mill and the company's trucking terminal is located there. The other mills in the South are all spinning mills.

Both the Dalton and Newnan mills likewise have a powered platform truck for handling doff boxes of bobbins, between the twister and winder room, these boxes being moved on skids.

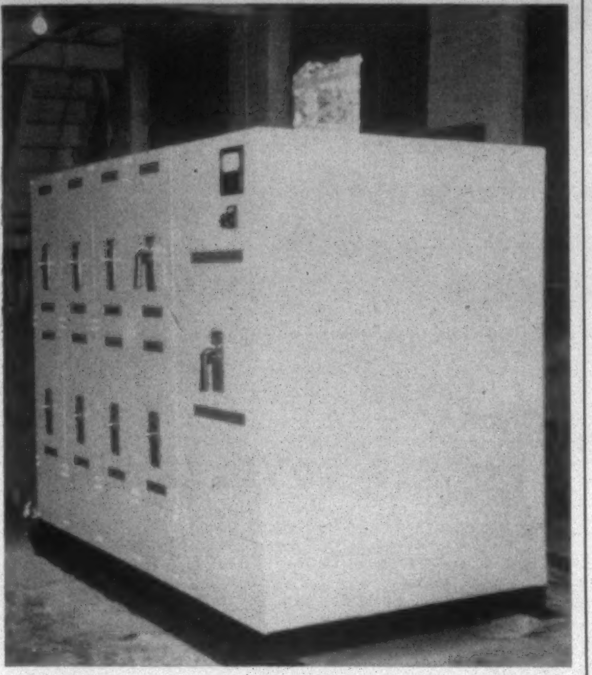
Mr. Griffith makes periodic visits to each of the company's mills to check on the materials handling systems there. His studies include not only the use of powered industrial and over-the-road trucks and trailers, but also conveyor lines—both belt and overhead chain line—within plants, including both belt and chain conveyors, as well as the use of other automatic machinery used in the packaging of the company's varied line of output, which ranges from individual bobbins of thread used by garment manufacturers, to rug yarns, and other textile threads. Movement of materials and supplies between buildings, both by rail and by truck, also is subjected to study by the materials handling engineering department.



These shipping containers, of a special type of wire-bound wood construction, contain finished material produced at the mills of American Thread Co. Light in weight, they can be handled by powered industrial trucks of the pallet-handling type. Picture shows worker about to place double-container load in a five-high stack with the aid of a high-tiering, pallet-handling powered truck. Considerable conservation of floor area assigned to storage, has been effected through use of this system of handling materials.



Special types of containers, or "baskets," made of heavy wire, and built to American Thread Co. specifications as to size and load capacity, are used to handle bobbins of yarn into and out of storage, and for inter-mill shipment by highway-trailer trucks. This picture shows a high-tiering, pallet-handling, battery-powered industrial hand truck placing two of the special containers in storage. Containers are collapsible, so as to provide for easy storage until ready for use, and also to permit their return by highway truck to mills where shipments originated.



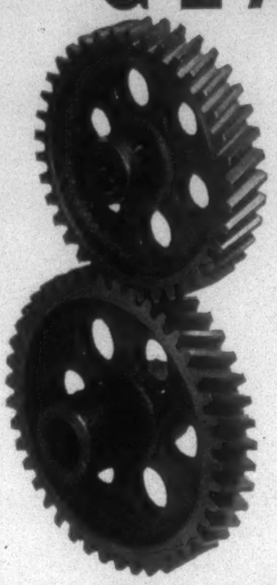
New switchboard built by Southern Electric Service Co. for installation at Bladenboro (N. C.) Cotton Mills.

Southern Electric Service Co.

Charlotte • Greensboro • Spartanburg • Greenville

Custom Cut

GEARS



SILENT CHAIN DRIVES

•

ROLLER CHAIN DRIVES

•

VEE CORD DRIVES

•

SPROCKETS
SHEAVES
COMPOUNDS

Write For Stock Sheet on Gears

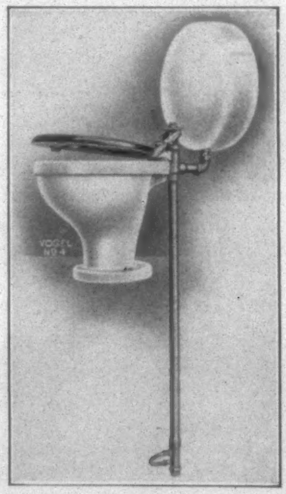
FERGUSON GEAR COMPANY
GASTONIA, NORTH CAROLINA

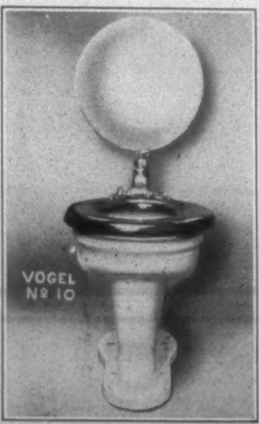
VOGEL OFFERS AN OUTFIT TO MEET YOUR REQUIREMENTS—

Vogel Closets and Hydrants are the original Closets and Hydrants of their type, and over a million have been sold through recognized wholesalers of plumbing supplies.

VOGEL No. 4
FROST-PROOF CLOSET

The No. 4 Frost-Proof is ideally suited to Mills and Mill Villages and when properly installed will operate efficiently even in the coldest weather. Its rugged construction and few moving parts assure long dependable service. A great convenience when installed in the yard or on a rear porch of a residence.





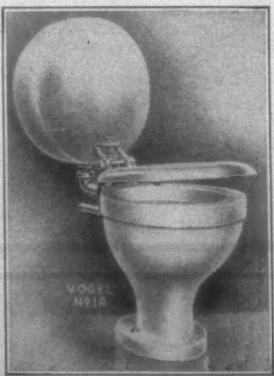
VOGEL No. 10
SEAT-ACTION CLOSETS

For Factories, Schools, Institutions, Farms and Comfort Stations. These durable syphon-action closets are simple in construction with few moving parts and no mechanism in the tank to get out of order. They represent the ultimate in economy... both in water consumption and upkeep.

VOGEL No. 14
SOUTHERN OUTFIT
(Not Frost-Proof)

The No. 14 is designed for Mills, Factories and Industrial Plants which do not require complete frost-proof protection. The No. 14 has a vitreous china bowl and is made of the same long-wearing materials for which all Vogel Products are noted.

(For installation where trap is set in floor)



JOSEPH A. VOGEL CO., WILMINGTON 99, DELAWARE

VOGEL PRODUCTS

CAMS

with-
Exclusive Features

Sam Cam says:

From PRECISION only—exclusive formula, NON-SLOUGHING Cams (standard or special) for spinning and twisting—at no EXTRA COST—providing amazing, up-to-4 way, yarn control. Get "jewelled movement" ring rail reversing, longer lived accuracy—no sloppy backlash, due to Cams. Build firmer, longer running, higher speed bobbins. Cut your time and costs. No other cams are made with this mathematical accuracy. Write for our Cam Computation Chart and full information, now!

"The Cam House"

- Stock
- Special
- Duplicated
- Filling Wind (3 and 4 lobe)
- Warp Wind (Combination)
- Wool Spinning

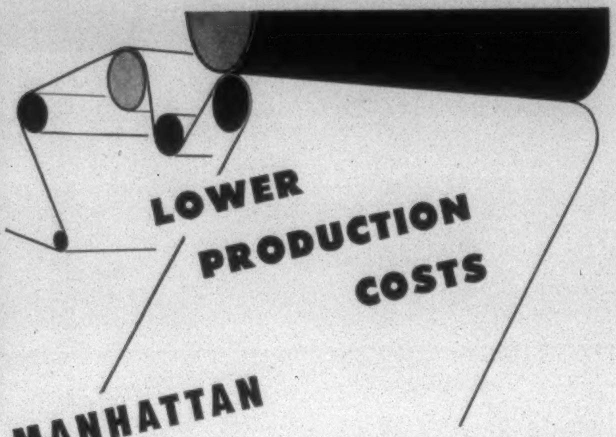
Face hardened Cast Iron or Alloy.

Engineers : Manufacturers — Cams · Bearings · Gears . Chain Drives

DIVISION OF TURNER MANUFACTURING CO.

PRECISION
GEAR AND MACHINE CO.
2001 North Tryon St., Charlotte, N.C.
Ph. 4-6857

THE SOUTH'S LARGEST MANUFACTURER OF GEARS AND CHAIN DRIVES



LOWER PRODUCTION COSTS

MANHATTAN

RUBBER COVERED ROLLS

You get years of trouble-free service because Manhattan Rubber Covered Rolls do not deteriorate. They maintain uniform density and resist cracking and oxidizing. Uniform, uninterrupted production is assured for batcher, scutcher, slasher, padder, mercerizing range and other textile equipment.

RUBBER LINED TANKS, PIPE AND FITTINGS
RUBBER AND ASBESTOS PRODUCTS

R M **RAYBESTOS-MANHATTAN, INC.**
N. CHARLESTON, S. C.

You'll find CLINTON Quality Starches tops for every textile purpose!

CLINTON Textile Starches are scientifically manufactured with unvarying uniformity assured. Clinton Starches give your warp the necessary body, strength and pliability that means quality weaving every time. For years Clinton has been a leader in the production of starches for all textile purposes.

CLINTON

CLINTON FOODS INC.
CLINTON, IOWA

CONTACT: R. C. Rau, S.E. Mgr. Clinton Sales Co., 918 Mortgage Guarantee Bldg., Atlanta 3, Ga.
Boyce L. Estes, 343 Mimora Dr., Decatur, Ga.
Grady Gilbert, Box 342, Concord, N. C. Frank Rogers, South Carolina National Bank Bldg., Greenville, S. C.

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

Ludwig P. Vollers, Jr., recently joined Synthron, Inc., Ashton, R. I., as field representative in Pennsylvania, New York and New Jersey. Previously he was associated with Guyan Mills in Valley Falls, R. I., and the nylon division of E. I. du Pont de Nemours & Co., Inc.

Wallace MacMaster, Jr., has been appointed direct sales and service engineer for the weaving industry in the Mid-West by the E. H. Jacobs Northern and Southern Divisions of the Bullard Clark Co., Danielson, Conn., and Charlotte, N. C. Mr. MacMaster, who is a graduate of the University of Pittsburgh and served in the Navy during the war, makes his home in East Cleveland, Ohio.

Robert S. Small of Greenville, S. C., Nov. 20 was elected a vice-president of Woodside Mills, Greenville, and re-elected president of the Woodside-owned Haynsworth Mills and Ottaray Textiles of Anderson, S. C. Other new officers of the Anderson mills include W. H. Beattie, vice-president; W. H. Monckton, secretary; H. B. Walker, assistant treasurer; and R. C. Teddards, assistant treasurer.

Waldemar R. Kuenzel has been elected vice-president in charge of fabric development and Gerrish H. Milliken, Jr., has been named vice-president of Orlon fabric sales for Deering, Milliken & Co. Mr. Kuenzel has been with the company since 1945 and Mr. Milliken since 1946. Prior to joining Deering, Milliken Mr. Kuenzel was associated with E. I. du Pont de Nemours & Co., Inc.

Albert J. Huber has been named director of spun fabric development and research for Textron, Inc. Mr. Huber was formerly with the menswear division of Burlington Mills in charge of fabric development. He had previously been with Verney Corp., Southeastern Cottons, Inc., and with American Viscose Corp. Mr. Huber is a native of Switzerland where he received his training. He is a member of the A.A.T.T., the Textile Club, Kismet Shrine and is active in the Masonic Veterans' Rehabilitation Program.

James A. Webber and Frank T. Williams have been appointed assistant divisional managers of the viscose filament sales division of American Viscose Corp. Mr. Webber will devote his time to textile yarns, and Mr. Williams to tire yarns. A graduate of Dartmouth College, Mr. Williams joined American Viscose in 1941. During World War II he served as a member of the corporation's war effort department, receiving a Naval Ordnance citation for his services in connection with development of special rayon fabrics for military use. Mr. Webber has been associated with American Viscose for 31 years. For several years he worked in the control laboratory of the Marcus Hook, Pa., plant, becoming an assistant to Dr. Frederic Bonnet at the corporation standards department. Later, Mr. Webber was assigned to sales service work and became one of the original staff members of the textile research department in Marcus Hook. In 1940 he was transferred to the viscose filament sales division in New York.

Elwyn N. Atwood recently was named Southern representative for Davis & Furber Machine Co., North Andover, Mass., in charge of the firm's Charlotte, N. C., branch. He fills the vacancy created by the death of Donald A. Buchan last Aug. 20. Mr. Atwood has been associated with Davis & Furber since 1939. . . . Henry A. Newby and William M. Truslow continue as members of the Southern sales staff.

John T. Wigington has been appointed executive secretary of Phi Psi, textile fraternity. Mr. Wigington, a 1923 graduate in textile engineering from the Clemson (S. C.) College School of Textiles, was elected to honorary membership in the fraternity in 1940. He is presently located at Clemson as director of the division of technical service of the American Cotton Manufacturers Institute.

Harvey Eastman, for the past nine years superintendent of the Bristol, Tenn., plant of American Thread Co., has been named manager of the company's new finishing plant now under construction near Sevier, N. C. Mr. Eastman joined American Thread in 1940 and prior to that was associated with Kendall Mills.

William E. Conlon, who recently resigned as office sales manager for H & B American Machine Co., Pawtucket, R. I., has joined Airlind Corp. and Texplant Corp., Stamford, Conn., textile equipment exporter and importer, respectively. In his new duties Mr. Conlon will be in sales development work on new items.

Claude C. Dawson *(left above)*, retired general manager of the Cramerton (N. C.) Division of Burlington Mills Corp., has been named executive secretary of the Southern Combed Yarn Spinners Association to succeed H. E. Rietz *(at right)*, who is resigning Dec. 31 after six years in that post to join Textile Enterprises of Atlanta, Ga., as representative in North Carolina and Virginia. Mr. Dawson joined Cramerton Mills in 1908 following his graduation from N. C. State College, Raleigh. He became superintendent at Cramerton in 1916 and was made division manager when the plant was acquired by Bur-Mil several years ago. He has been retired since early in 1951.

B. Everett Jordan, secretary and treasurer of Sellers Mfg. Co., Saxapahaw, N. C., in an effort to promote Scouting in his community, has established a college scholarship which will be available to all Boy Scouts of Saxapahaw who attain Eagle Scout rank.

W. B. Dixon Stroud of Deering, Milliken & Co., recently was elected a director of Commercial National Bank of Spartanburg, Landrum, Union and Jonesville, S. C.

T. W. Borland, vice-president of Carlton Yarn Mills and general manager of that company's Cartex Division in Salisbury, N. C., recently was named a director of the Salisbury branch bank of Wachovia Bank & Trust Co.

Emerson W. Bullard, formerly assistant, is now head of the manufacturing division of Southern mills for Clark Thread Co. and North Georgia Processing Co. He will make his headquarters at Spool Cotton Co., Atlanta, Ga., where offices and a warehouse are maintained. Mr. Bullard succeeds Frederick W. Thomas who retired in October because of ill health.

William G. Stainton, former general manager of the Appleton Co. at Anderson, S. C., and previously superintendent of Alabama Mills, has been appointed Southern district manager of Diehl Mfg. Co., Somerville, N. J., electrical division of the

To the Man Who Buys CASTERS

Compare the WIL-MAT Caster with any other. Here are some of its advantages.

30% to 40% More Tread
This heavy drawn sheet steel tread means far longer service and reduced costs.

Smooth-as-Silk Tread
Will not harm maple floors. Its curved chip-proof bevel cannot wear to a sharp edge.

Grease-Resist Surface
Will not pick up grease, oil, or grime and track it over your floors.

Super-Smooth Action
Heavy steel ball bearings, in thrust-type hardened natural raceways, make this the smoothest rolling caster on the market.

Great Strength
Heavy and accurately machined parts give the WIL-MAT Caster exceptional strength as well as smooth action.

Compare the WIL-MAT Caster with any other and you, too, will join the many mills which are now using WIL-MATS exclusively.

And They Won't Clog Up

WIL-MAT Ball Bearing Swivel and Rigid Casters

Wilkin & Matthews
CHARLOTTE, NORTH CAROLINA

Singer Mfg. Co., manufacturer of electric motors, generators and fans. Mr. Stainton will have his headquarters in Atlanta, Ga., and will specialize in the application engineering of textile mill motors to textile machinery.

James Webb, in addition to his duties as president of Eno Cotton Mills at Hillsboro, N. C., a unit of Cone Mills Corp., also has assumed charge of Cone's Tabardrey Plant at Haw River, N. C. He has been associated with Eno 25 years, the past six as president.

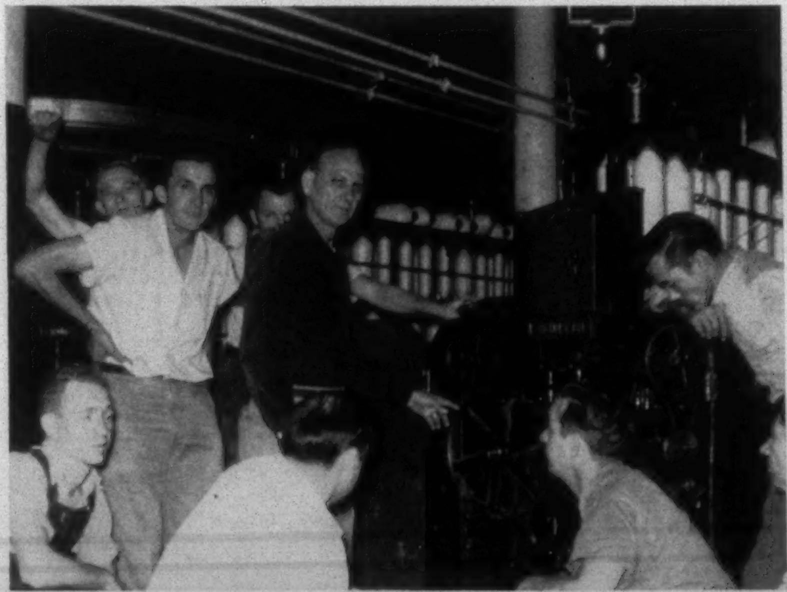
Ed B. Kirby has been promoted from assistant overseer to overseer of the cloth room at the Hillside Plant of Callaway Mills Co., LaGrange, Ga. Mr. Kirby, who has been with Callaway since 1933, succeeds H. M. Erwin, who recently retired after 34 years with the company.

Charles A. Harris, Jr., has been placed in charge of the new Iselin-Jefferson Co. office in the Liberty Life Building at Charlotte, N. C., having been transferred from the firm's office at Atlanta, Ga. The younger Mr. Harris has been connected with Iselin-Jefferson since his graduation from the North Carolina State College School of Textiles in 1949. He is the son of the president and treasurer of Somerset Mills, Inc., Roxboro, N. C., and a nephew of R. L. Harris, president of Roxboro Cotton Mills.

James M. Rennie has been appointed director of the engineering and standards departments at Dan River Mills, Danville, Va., and Walter D. Vincent has been named manager of store rooms and the print shop.

Ligon G. Compton, Jr., has been named industrial sales representative in the Greenville, S. C., area of the Southeastern district operation of Tide Water Associated Oil Co., New York City. Mr. Compton replaces John S. Barnett who has been given a two-year military leave of absence. Before joining Tide Water Associated, Mr. Compton was associated with Abney Mills in Woodruff, S. C., and Leward Cotton Mills at Worthville, N. C.

L. A. Fluck *(left)* has been promoted to assistant to the manager of American Cyanamid's textile resin department. The new appointment will take effect Jan. 1. Mr. Fluck has been connected with American Cyanamid Co. for the last 12 years. He has been manager of the application laboratories of the textile resin department since 1948 and before that was a development chemist in Cyanamid's textile chemicals department in Stamford, Conn. After graduating from Brown University in 1937, Mr. Fluck served, for several years, as chemist in the Cranston Print Works in Rhode Island. He holds six patents as inventor or co-inventor in the textile finishing field. In addition to his general responsibilities in the manager's office, Mr. Fluck will be available for field consultations with mill development and finishing plant executives in regard to textile resin application techniques. . . . Dr. T. F. Cooke has been appointed manager of the application laboratories of American Cyanamid's textile resin department. Dr. Cooke joined American Cyanamid's Calco Chemical Division in 1940 as a research chemist. During the war, he served with the U. S. Army Engineer Corps, in charge of organizing, equipping and staffing, and later, as director of the materials laboratory of the engineer board. He was given an Army Commendation Award in recognition of his work and left the service in 1945 with the rank of major. On his return to the Calco Chemical Division, Dr. Cooke was appointed assistant director of physical chemical research and in 1949 became assistant



SUNDAY CLASSES INSIDE EXPOSITION COTTON MILLS, Atlanta, Ga., are currently being taught by Herman Dial *(center, dark shirt)*, assistant overseer of spinning. The students learn spinning frame calculations, draft formula, spinning frame fixing, general overhauling, etc.

director of the application research department. . . . Clem W. Kohlman has been appointed advertising and promotion manager for the textile research department. Sales promotion personnel who reported previously to the Metropolitan sales office will now report to the advertising and promotion manager. Mr. Kohlman has been closely in touch with the development of the textile resin department. Since 1946, he has been the department's advertising account executive, formerly with Grey Advertising Agency, Inc., and since 1948, with Roy S. Durstine, Inc. Mr. Kohlman has had extensive experience in advertising and merchandising textiles.

Walter Danhoff of Clinton, S. C., is now superintendent of the No. 1, 2 and 3 plants of Caledonia Mills, Inc., at Lumberton, N. C. . . . F. G. Revels of Rockingham, N. C., is now overseer of weaving at Caledonia.

C. Wells Moore, Jr., secretary and general manager of Dalton (Ga.) Textile Corp., was a candidate for councilman in a city election scheduled to have been held Dec. 12 at Dalton.

Donald B. Tansill has resigned as vice-president of Burlington Mills Corp. of New York to join M. Lowenstein & Sons, Inc., as executive vice-president in charge of merchandising for the company and its subsidiaries. He also was elected to the Lowenstein board of directors. Previously Mr. Tansill was associated for 25 years with Pepperell Mfg. Co. as vice-president in charge of sales.

J. M. Stowe has retired as superintendent of National Yarn Mills, Belmont, N. C., after 50 years in the textile industry, and has become superintendent of the new Stowe Park in Belmont, which opened last July 4.

James C. Parrish has resigned as superintendent of Robinson Mills, Inc., Dallas, N. C., to accept an as yet undisclosed textile assignment in Gastonia, N. C.

John C. Long, since 1947 a salesman for Sonoco Products Co., Hartsville, S. C., in Alabama, Mississippi, Louisiana, Tennes-

A DISTINGUISHED SERVICE AWARD FROM OAKITE PRODUCTS, INC., was presented to Louis A. Prince, the firm's technical service representative in the Greensboro, N. C., area, last month at an Oakite technical-sales sonference in Chicago, Ill. In the picture above John A. Carter *(left)*, president of Oakite Products, presents the special scroll to Mr. Prince. The Oakite Distinguished Service program calls for awards to be made annually to five members of the firm's nationwide field organization adjudged to have rendered especially notable service to industry during the year.

A SIZE
FOR EVERY FABRIC
AND CONDITION

SLASHING
WEAVE-WELL
PRODUCTS

FINISHING
FINISH-RITE
PRODUCTS

SHUTTLE
GREASE-RITE
TALLOW

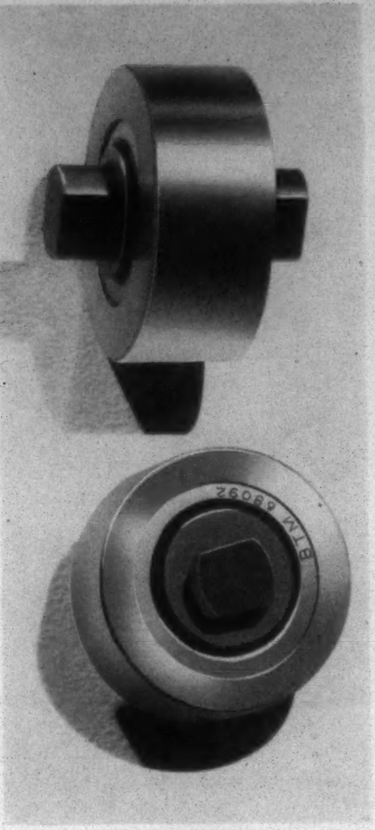
SIZING problems, many weavers know by long experience, are most readily solved with a call to the Frank G. North organization of men who are at home in the mills.

For almost half a century our products and our staff of experienced mill-trained representatives have contributed to profitable, efficient textile production.

If you have not yet done so, let them both work for you. A letter or phone call will bring a North representative to you at once.

Among the Nation's Largest Manufacturers of Dressings for All Warp Yarns

FRANK G.
NORTH
INCORPORATED
MANUFACTURING CHEMISTS
ATLANTA, GEORGIA • P.O. Box 123, Sta. A • Phone RAymond 2196
MARIETTA, GEORGIA • P.O. Box 92 • Phone Marietta 250



B T M

Improved Design

ANTI-FRICTION TREADLE ROLLS

Lubrication is completely sealed into these finer, longer lasting BTM Treadle Rolls, requiring a minimum of service. Ends are perfectly milled to fit treadle slots.

Use of BTM Treadle Rolls will eliminate fires, and stop down time resulting from treadle pin or roll failures.

For complete satisfaction, and for better performance always, specify BTM parts.

BAHAN
TEXTILE MACHINERY CO.
GREENVILLE, S.C.

see, Arkansas and Texas, will be transferred to the Brantford, Canada, office of Sonoco Products Co., Ltd., Jan. 1. He will handle sales from the Brantford office and assist salesmen of W. J. Westaway Co., general sales agents for the Canadian company.

J. H. Grut, secretary and treasurer of National Automotive Fibers, Inc., Detroit, Mich., has been granted a year's leave of absence because of ill health. . . . Harvey B. Greene, assistant to the chairman, has been appointed acting secretary and treasurer to replace Mr. Grut during his absence.

Charles A. Cannon of Cannon Mills Co., Kannapolis, N. C., has been re-named as a trustee of the Carolinas Interstate Y.M.C.A. Committee and James C. Self, Jr., treasurer of Greenwood (S. C.) Mills, has been named to the executive committee.

Ray C. Pillsbury Dec. 1 joined the Universal Winding Co.'s sales staff, handling sales promotional work and acting as assistant to W. S. Warren, vice-president in charge of domestic sales, on special assignments. Mr. Pillsbury had previously worked with Universal Winding Co. in a similar capacity following many years with Cheney Bros. in Manchester, Conn. He resigned from Universal in 1945 to join the Exeter Mfg. Co., Exeter, N. H., in an executive capacity. He later became associated with the Wamsutta Mills in New Bedford, Mass., as director, vice-president and general manager. . . . Effective Jan. 1 Frank P. Barrie will be assigned to Universal's Charlotte, N. C., office following five very successful years of selling in New England. Mr. Barrie's appointment to Charlotte is in line with the company's policy of continually strengthening and enlarging its sales staff in the Southern territory. Mr. Barrie will augment Universal's Atwood Division sales staff and will specialize on the company's many accounts in that territory who use its line of twisting equipment. . . . Fred Sails, who has sold Atwood equipment in the Charlotte territory for a great many years prior to and since the acquisition of Atwood by Universal, will announce to his many friends his intended resignation and retirement which will become effective June 30, 1952.

Robert E. Smith, formerly assistant manager of the staple sales division for American Viscose Corp., has been appointed Acrilan sales manager for the Chemstrand Corp. Mr. Smith, who had been associated with American Viscose since 1940, has been assisting Chemstrand in experimental work with Acrilan acrylic fibers for the past several months.

Guy R. Williams has been appointed service manager at the Charlotte, N. C., office of Foster Machine Co., Westfield, Mass.

MACHINE SPEEDS UP WARP BEAMING—The American Viscose Corp. textile research department is now turning out section beams in as short a time as 4½ hours in experimental work at Marcus Hook, Pa., with this new Sipp-Eastwood beamer. It is emphasized that this is not a commercial operation. Each beam carries 766 ends of 100-denier rayon 53,000 yards long, and beams have been wound with a slow as six breaks each.

In these Avisco experiments, as a result of improvements in the formation of the cakes, coning is bypassed, the beamer being fed directly from the cakes. Time and motion studies have also enabled Avisco to reduce to 30 minutes the time required for three experienced women to tie the 766 knots necessary each time a new beam is started.

Electronic control keeps the yarns moving at a constant speed and provides for an automatic stop, without skidding, whenever there is a break. As a result of these and other refinements the speed at which it is being run by Avisco is approaching 450 yards per minute operating from cakes, in contrast to the usual 300. Among these other refinements are a traverse, quick-doffing arrangement, pre-setting counter, and an instant speed change.

This machine is one of a number of new textile machines installed recently by Avisco's textile research department. The department, which has long engaged in a continuing study of fibers, yarns, fabrics, finishes, and equipment, plans to broaden still further its service to the textile industry.

Following attendance at the University of North Carolina and University of Alabama, Mr. Williams gained several years' experience in North Carolina mills before joining Foster as a machine erector in 1940. Seven years later he left the company for a period of experience at selling textile chemicals, and now returns to take charge of Foster's service work in the Carolinas and Virginia.

Walter E. Wenck recently was named sales representative for Emkay Chemical Co., Elizabeth, N. J., in North Carolina, South Carolina and Tennessee. He will make his headquarters in Gastonia, N. C. Mr. Wenck has had previous dyeing experience in plants in Canada and Mexico. In recent years he has been dyer at Patrician Piece Works in Columbia, Pa., and Clifton, N. J.

Stanley H. Rose has been promoted to the newly-created post of manager of yarn sales development for Celanese Corp. of America. Mr. Rose will be concerned primarily with developing new business with fabric designers, converters and mill customers of the acetate filament yarn and acetate staple fiber divisions. He has been with the corporation for the last four years in the capacity of textile sales promotion manager, and from 1941 to 1947 was advertising manager of Aralac, Inc.

Fred C. Scholler, president of Philadelphia Textile Institute Foundation, was awarded an honorary degree in Phi Psi fraternity Dec. 6 at an installation banquet of Philadelphia Textile Institute. Noting his contributions and services to the textile industry and the field of textile education, the school was represented in the presentation by Theodore B. Hayward, chairman of the board of trustees of the institute.

Douglas C. Newman *(left)* has been named director of all sales activities of the organic chemicals department of E. I. du Pont de Nemours & Co., Inc. Mr. Newman formerly was sales director of the dyestuffs division. Mr. Newman, who has been with Du Pont since 1918, assumed his new duties Dec. 1. . . . Effective the same date, Dr. Miles A. Dahlen was named director of sales, dyestuffs division, succeeding Mr. Newman, and Gordon M. Markle was appointed director of sales, fine chemicals division; J. H. Swezey was appointed director of sales of the export division and J. Preston Wills was named manager of export sales.

E. Lee Skipper, Lancaster, S. C., textile consultant; Harris E. Stocker, partner in the New York engineering and architectural firm of Brown-Guenther-Booss; and Eric A. Schwarz, executive in charge of marketing research of Princeton Worsted Mills, Trenton, N. J.; left New York Nov. 20 for Australia to make an intensive 60-day

STANLEY

STEEL STRAPPING SYSTEM

STEEL STRAPPING, TOOLS and ACCESSORIES

Improved ACE Strapping Tool with automatic seal feed. For ⅜", ½" and ⅝" strapping.

RS Tightener For ⅜", ½", ⅝" and ¾" sizes

Steel Strapping skid load ready for shipment.

Representative tools, reels, seals, strapping and accessories from the Stanley Steel Strapping System. For full information write to: The Stanley Works, Steel Strapping Division, 213 Lake St., New Britain, Conn. Offices in principal cities.

Seals For ⅜", ½", ⅝" and ¾" strapping

3 in 1 Tool For ⅜", ½", ⅝" and ¾" strapping

"A" Sealer For smooth, easy sealing of ⅜", ½", ⅝" and ¾" strapping

Snip For ⅜", ½", ⅝" and ¾" strapping

Reel Stand with tray for tool and seals

CAR BANDING—PALLETIZING

FASTENERS

Car Banding Sealers Capacity: ¾", 1¼" and 2"

Double coil of Stanley "Car Band"

Box Fastener

Heavy Duty Shears Model D ¾", 1¼" and 2" strapping

Car Banding Tighteners Capacity: ¾", 1¼" and 2"

Corrugated Fastener Parallel and divergent; coils and cut lengths

STANLEY EQUIPMENT and ACCESSORIES for FASTER FASTENING

"Mechanical Arm" Tool Support

The Stanley Works, Steel Strapping Div.
New Britain, Connecticut

STEEL STRAPPING and CAR BANDING SYSTEMS

STANLEY

Reg. U.S. Pat. Off.

HARDWARE • TOOLS • ELECTRIC TOOLS • STEEL STRAPPING • STEEL

THE "JUNIOR CLEANER"
(Patent Pending)

Does a "Man-Size" Job!

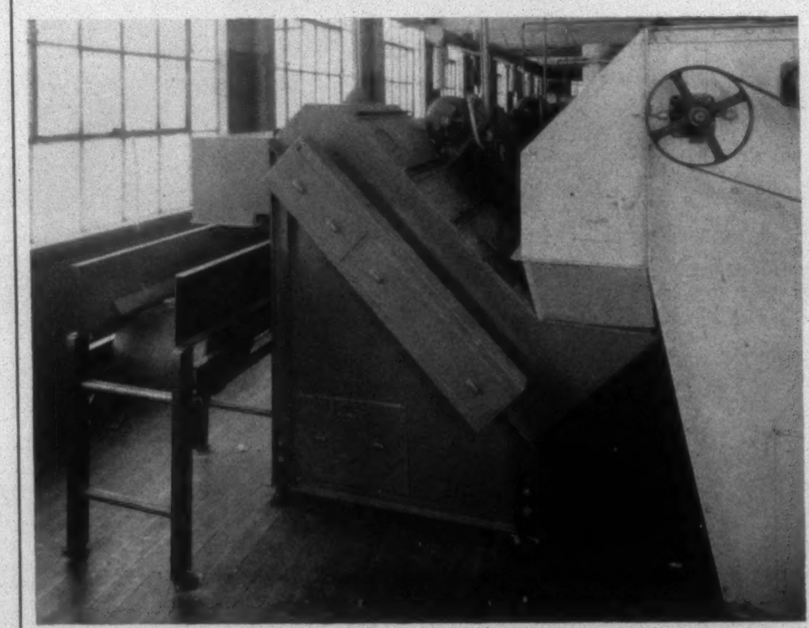
For use between hopper and conveyor.

Delivers to regular cleaning line.

Completely opens and pre-cleans small amount of cotton delivered to each hopper in battery, so that machines in regular cleaning lines do *more cleaning* with *less staple breakage.*

Requires 43" between hopper and conveyor table.

PROVED BY TEST



Above is "close-up" of one of the battery of "JUNIOR CLEANERS" in an Alabama Mill.

Manufactured by

GASTONIA TEXTILE MACHINERY CO.

GASTONIA, NORTH CAROLINA

survey of that company's textile industry. Objective of the study will be to increase production efficiency and raise output per man-hour in an effort to bring the industry to the same competitive level it enjoyed in Europe before World War II. Their services, which were requested by the Austrian government, are being financed by the Economic Co-operation Administration under its technical assistance program. All foreign costs, including transportation to Austria and return, are being sponsored by Austria.

Walter F. Dowman, Jr., has been promoted to assistant overseer of the bleach and finishing departments in the bleachery division of Thomaston (Ga.) Mills. Prior to his promotion he was a section hand in the finishing department. Mr. Dowman has been associated with Thomaston Mills since his graduation from Georgia Tech in 1948, where he majored in textile engineering.

D. G. Rogers has been appointed president of National Aniline Division of Allied Chemical & Dye Corp. His appointment was effective Dec. 1. Mr. Rogers has been executive vice-president of National Aniline Division since October, 1950, and will succeed E. M. Maxwell, who for some time has been absent because of illness.

Stuart G. Keiller has been appointed manager, velon filament sales, of the Firestone Plastics Co. of Pottstown, Pa. Mr. Keiller, who has been associated with Firestone for the past six years in the development and sale of velon yarns and filaments, is making his headquarters at the New York office of the company in the Empire State Building.

Robert Gordon MacDougall has been appointed general manager of the featured fabric finishes department of Warwick Chemical Co., division of Sun Chemical Corp. Mr. MacDougall replaces Albert Leitstein, who died recently. Mr. MacDougall, who has been with Warwick Chemical nine years, has a background of 25 years in advertising and sales promotion.

OBITUARIES

Arthur Besse, 64, for the last 18 years president of the National Association of Wool Manufacturers, died Nov. 24 at a hospital in New York City. Mr. Besse was assistant manager of the Besse-Avery Co. of Kansas City, Mo., and the Besse-Sprague Co. of Syracuse, N. Y., 1913-1917; treasurer of Sherman Welton Co., Boston, 1920-22, and of the Besse System Co., 1923-26; a partner in the Hale Waters Investment Security Corp., New York, 1926-1931. Elected president of the National Association of Wool Manufacturers in September, 1933, he served as chairman of the N.R.A. code authority for the wool textile industry, and in 1940 was for a brief period on the advisory committee of the Council of National

Defense. His wife, three sons and three sisters survive.

Henry H. Crapo, 89, from 1926 to 1946 president of Mt. Hope Finishing Co., North Dighton, Mass., died Nov. 26 at a hospital in Leesburg, Fla. He was a director of Potomska Mills Corp., New Bedford, Mass., and a former president of Gosnold Mills, New Bedford. He is survived by two nieces and a nephew.

Eugene C. Gwaltney, 69, vice-president in charge of research and development for Saco-Lowell Shops, Biddeford, Me., died Nov. 30 of a heart attack. *(See Page 42)*. An outstanding engineer and inventor, his career spanned half a century and included executive management of textile mills in the South as well as consultant work. He joined Saco-Lowell in 1938 as research director and was appointed a vice-president in September, 1947. Prior to joining Saco-Lowell he was associated with Bibb Mfg. Co., Macon, Ga.; Pacolet (S. C.) Mfg. Co.; Morgan Mills, Laurel Hill, N. C.; Utica Cotton Mills and others. He was a native of Raleigh, N. C. Interment was made at Rock Hill, S. C. Surviving are his wife, a son and a daughter.

Curtis E. Honeycutt, 55, who established the Gastonia (N. C.) Brush Co. and Gastonia Roller Flyer & Spindle Co., both of which he sold during World War II, died Dec. 3 at his home in Gastonia. He had been in failing health for several years. Surviving are his wife, his mother, three brothers and seven sisters.

Brig.-Gen. Allen R. Kimball (U.S.A. ret.), 65, until recently personnel manager of Mohawk Carpet Mills, Inc., died Dec. 6 in Amsterdam, N. Y. General Kimball was European theater deputy chief quartermaster during World War II.

Austin T. Levy, 70, who once was called this country's "serge king," died Nov. 24 at a hospital in Providence, R. I. His company, Stillwater Worsted Mills, included plants in Rhode Island, Connecticut and Virginia. In Virginia, where he set up model villages for his employees, his plants were located at Augusta Springs, Craigsville and Goshen. Under a bonus plan inaugurated during the first World War, Mr. Levy began sharing with employees profits of the company. This culminated in a stock transfer in 1942 when he withdrew from the company. He retained the Harrisville (R. I.) Co., a wool combing plant, serving as president and treasurer until his death. His wife and a sister survive.

William F. Pritchard, 63, at one time considered one of the South's foremost experts in silk yarn processing, died Nov. 25 at a hospital in Chattanooga, Tenn. Mr. Pritchard was for 19 years superintendent of Davenport Silk Mills, Chattanooga, which later became Davenport Hosiery Mills. His wife, a stepson and four sisters survive.

See *"Before Closing Down"*
for more Personal News

Booth *Originators of* **STRIP-O-MATIC** *

CARD CLOTHING NEWS AND VIEWS

NEW TYPE CARD CLOTHING PROVED IN MILL OPERATION

YOU GAIN THESE BENEFITS WITH

STRIP-O-MATIC

CARD CLOTHING

In the last two years STRIP-O-MATIC has been put to work in more than 200 textile mills, carding practically all textile fibres. The following reports from pleased users are typical.

Cuts Stripping Waste by Two-thirds **reports a prominent Pennsylvania woolen manufacturer running fleece, top and synthetics.**

Runs to Nine Months Without Stripping, **the record achieved by a Philadelphia nylon spinner. With conventional clothing, stripping was required every two to three weeks on an eight-hour shift—weekly or oftener with two-shift operation.**

Color Lots Are Run Complete **without stripping. Many modern carpet plants are able to run up to six weeks without stripping. With the conventional clothing that STRIP-O-MATIC replaced, stripping was necessary every day or two.**

Savings Up To $1,000 Per Year **by eliminating waste stock in stripping from a STRIP-O-MATIC equipped breaker card, are reported by a prominent Canadian Mill.**

Performance Record. **A finisher card with conventional clothing ran 24 hours—stripped 2 lbs. waste. A finisher with STRIPO-MATIC ran twelve days (24 hours per day)—stripped 6 oz. Carding was excellent, good web, no fibre damage—saving $170 on one finisher in 12 days.**

Typical User Comments: **Less Fly, Greater Strength, Greater Production, Less Shrinkage, Better Quality, Stripping is Easier; Working well on 70 wool.**

A Benjamin Booth representative will be glad to call to help you achieve similar results with STRIP-O-MATIC.

Sincerely yours,
E. Allen Snape, Jr.

E. Allen Snape Jr

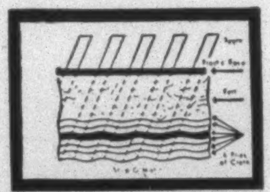
President
BENJAMIN BOOTH COMPANY

Representative: **Oliver D. Landis, Inc.**
718 Queens Road, Charlotte 7, N. C.
Exclusive Sales Agent—**North Carolina**
South Carolina

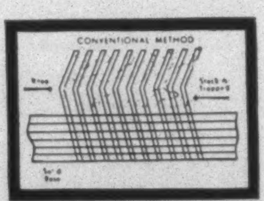
and

Charles G. Stover, West Point, Ga.
Exclusive Representative—**Georgia**
Alabama

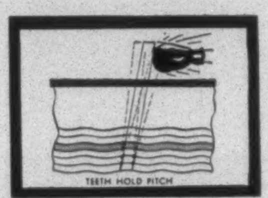
Established 1892



Straight Teeth aids the stripping action. Fibres cannot be trapped.



Bend in teeth traps fibres below the knee of the teeth.



Extra strong longitudinally—designed to cushion the effect of blows.

* Patented (R)

BENJAMIN BOOTH CO., ALLEGHENY AVE. & JANNEY ST., PHILA. 34, PA. **Booth**

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

ORANGE, CALIF.—Completion of a new modern manufacturing plant at Orange, 40 miles southeast of Los Angeles, has been announced by Robert J. Stack, president of National Automotive Fibres, Inc., Detroit, Mich. Representing a total cost of about $400,000, the plant will be operated as one of the company's California Cotton Mills divisions, and will manufacture a complete line of industrial cotton yarn. Equipment is now being installed, and partial operations are scheduled to begin early in January. The plant contains approximately 40,000 square feet of floor space, and is located on a seven-acre site which allows ample room for future expansion. This location was selected so that the company can better serve its trade in the Southern California territory. Mr. Stack also announced the appointments of P. M. Rogers, formerly in the cotton yarn business in Southern California, as manager of the new division, and of J. H. Arnold, formerly assistant manager of the company's Los Angeles division, as plant manager.

BELTON, S. C.—Peerless Mills Co., Inc., will operate 480 looms in the production of gray rayon fabrics when full-scale operations are reached. Officials of the firm are Abe C. Fine, president and treasurer, and Martin J. Stein, secretary.

BUTNER, N. C. — Mt. Hope Finishing Co., Inc., has completed the transfer of its operations from North Dighton, Mass., to this former Army camp community which is just outside Durham, N. C. The firm began setting up operations here several months ago under the name of Creedmoor Corp., but now has received a North Carolina charter under the name of Mt. Hope and showing capital stock of $150,000. All reasonably modern machinery has been moved from North Dighton, and new equipment is being purchased to replace the old machinery which has been sold by Crescent Corp. at the former Massachusetts plant. At Butner, Mt. Hope will dye, bleach and finish synthetic fabrics, using steam power. Officials listed are J. A. Milliken, president; F. L. Daylor, vice-president; R. D. Milliken, treasurer; E. M. O'Connell, assistant treasurer; George Staples, superintendent; and Vernon Stead, purchasing agent.

PIEDMONT, S. C. — The Teacherage, a 23-room hotel here which has been used for many years to house school teachers in this area, has been presented to the Greenville County School District by Piedmont Mfg. Co., the owner. The deed to the colonial-type structure was presented to the chairman of the school district by R. Carter Henry, manager of the plant.

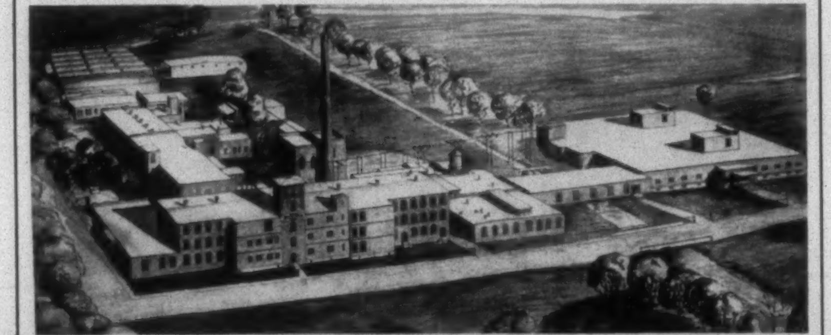
KAUFMAN, TEX. — Industrial Textile Mills held the formal opening of its new plant here Nov. 27 with Rep. Sam Rayburn attending as principal speaker for the event. The plant will produce industrial wiping towels.

CAMDEN, S. C.—The Du Pont Co. announced recently that its new plant here, still under construction, would produce 30 million pounds of Orlon acrylic fiber a year or nearly five times as much poundage as the first Orlon plant now in operation here. Production in the new plant is scheduled to start about the middle of 1952.

MORGANTON, N. C. — Plans have been abandoned for the establishment here of a plant for the manufacture of woven cotton rugs. J. Ed Butler, who had been named president of the proposed firm, Shuttle Wyze Carpets, stated that stockholders declined to approve plans for the operation after failure to sell through a securities firm $100,000 of the firm's stock.

STATESVILLE, N. C.—Statesville Throwing Co., a division of William Klopman & Sons, has been sold to William Rabinowitz & Sons of Allentown, Pa. The Pennsylvania firm deals in textile machinery, bobbins and other supplies. The plant has not been in operation for about a month. When in full operation it employs approximately 125 persons.

SPINDALE, N. C.—Stockholders of Spindale Mills, Inc., last month approved a proposal to increase the company authorized capital stock from $1,000,000 to $2,000,000.



PLANT NO. 8 OF ERWIN MILLS, INC., at Stonewall, Miss., has recently undergone an extensive modernization program. Included in this program were new brick and concrete warehouses, a new card room adjoining Mill No. 2, and a new one-story weave shed. All machinery has been rearranged to provide an easy flow of products from the baled cotton through the finished goods. Provision has been made for expansion of the plant, and the three main manufacturing buildings are serviced by an automatic conveyor system. Air changing with provision for refrigeration was provided in the carding, spinning and weaving departments. Lockwood Greene Engineers, Inc., of Spartanburg, S. C., handled the architectural and engineering phases of this project, and Fiske-Carter Construction Co. of Spartanburg was the general contractor.

SPRAY, N. C.—Tentative plans have been announced by Union Carbide & Chemical Co. for construction of a $33,000,000 synthetic fiber plant here. The National Production Authority has been asked for a certificate of necessity for the project. No land has been purchased at a recent date, but it is said to be available. The proposed plant, it is understood, would produce a fiber that would be used by the government in uniforms for the armed services.

SPINDALE, N. C. — The Elmore Corp. plans, within the next few months, to begin the preparation of dyed synthetic yarns on loom beams for the weaving industry. A plant addition for the department is now under construction and orders placed for new equipment.

MERIDIAN, MISS. — The Meridian city council at a recent meeting approved specifications and contracts for the purchase of machinery, equipment and supplies in connection with its contract with Textron, Inc. The council also authorized the city manager to advertise for bids on all items needed in construction of the $6,500,000 plant. Funds for erection of the plant were authorized in a bond election Oct. 2.

OXFORD, N. C.—The building program at the spinning plant of Burlington Mills Corp. here, where an addition is currently being erected which will double the size of the facility, has been expanded to include construction of a two-story building which will become office quarters for the plant.

CLARKSVILLE, VA. — Partial operations have been started at the local plant of United Merchants & Manufacturers, Inc., although construction of the entire plant is not yet completed. About 200 looms have been "set down" in the weaving department and 16 of these looms have been put into operation along with 16 throwing frames and two winders.

TROY, N. C.—It is reported in trade circles that Smitherman Cotton Mills, Troy's main industry, will change ownership soon. The mill is expected to be sold, to an as yet unnamed purchaser, at a price rumored to be between $600,000 and $800,000. The plant utilizes 15,226 spindles and 504 looms in the production of flannels and crinkled bed spreads.

LAURENS, S. C.—Woonsocket Worsted Co. expects to begin partial operations by March in the new plant now under construction here. Potter-Shakleford Construction Co. of Greenville, S. C., is building the plant at a cost of $104,845. Heating and air conditioning will be extra.

SPARTANBURG, S. C. — A Spartanburg brokerage firm, A. M. Law & Co., Nov. 30 filed a $300,000 civil suit in Federal Court here against J. P. Stevens & Co., Inc., for an alleged commission not paid in the purchase of Appleton Mills in Anderson, S. C.

The complaint set the purchase price at $6,000,000 and the plaintiffs are asking a five per cent commission, plus interest and costs of the action.

Easley, S. C.—Company-owned homes of Woodside Mills at its plants here and at Liberty, S. C., are to be offered for sale to employees of the plants.

Sanford, Me. — Sanford-Goodall, Inc., which employs 4,500 persons as this town's largest industry, may move to the South. President Elmer L. Ward, in a recent address, warned that he would recommend a move to the South unless town taxes were abated and the company be permitted to assign greater work loads to employees. "Unless the changes are made, I will recommend the move South to the board of directors," Mr. Ward stated.

New Orleans, La.—It is reported that American Cyanamid Co. is planning erection of a plant in the South to produce acrylonitrile, the raw material for acrylic fibers. It is also reported that the proposed new plant would represent a $47,000,000 investment and be located near New Orleans. A government certificate of necessity has been obtained for this amount.

Spray, N. C.—The new rayon mill of Fieldcrest Mills, located at the former woolen mill site, was formally opened Dec. 9.

Bishopville, S. C.—Bishopville Finishing Co., a division of Reeves Bros., Inc., expects to begin operations in its new plant here early in 1952. The Bishopville division already is operating an experimental laboratory while work continues on the new plant.

Pacolet, S. C. — Pacolet Mills School, built by Pacolet Mfg. Co. in 1922 and operated by the textile plant since that time, recently was turned over to District 9 of Spartanburg County. Deed to the school and four surrounding acres of land was presented to the District 9 board of trustees by Marshall C. Stone, executive vice-president and treasurer of the mill. The transfer represents a gift of about $350,000.

Greenville, S. C.—The Purchasing Department, Deering, Milliken Service Corp., announces that the correct address of this department is now Box 2327, Greenville, S. C.

LaGrange, Ga. — Callaway Mills Co. recently announced that it has adopted an employee profit-sharing plan known as the Callaway Mills Co. Provident Fund. However, it will be necessary to obtain approval of both the U. S. Treasury Department and Wage and Salary Stabilization authorities before the plan can become effective.

Columbia, S. C.—Nine South Carolina textile plants were presented safety awards recently at a banquet closing the first day of the annual state accident prevention conference here. The awards covered the first nine months of 1951. Winners in the various groups follow. Group A: First—Ara-

Quality:
in the palm of our hand!

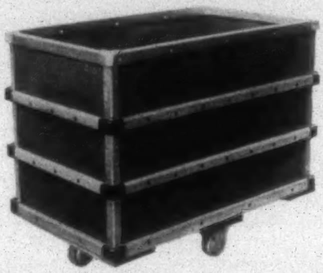
LOOM STRAPPING LEATHER BELTING

McLEOD LEATHER & BELTING COMPANY

GREENSBORO . . . NORTH CAROLINA

EXCEL

No. 1000
Fiber Truck
For Long and
Satisfactory
Service



This is a sturdy truck upon which you can depend for long and satisfactory service.

Compare its specifications with those of any other fibre truck.

- .090 vulcanized fibre, securely riveted to hardwood rails with **solid** steel rivets. These solid rivets are placed at short intervals to prevent buckling.
- Hardwood solid or slatted bottom, sanded to a smooth finish.
- Heavy duty metal top rail.
- Heavy duty metal corners.
- Casters securely **bolted** to bottom.
- Finished in clear lacquer, or painted, for added protection against moisture.

Representatives:

Mr. N. W. Eurey........Lincolnton, N. C.
Mr. Paul Eurey..........Lincolnton, N. C.
Industrial Suppliers, Inc.
La Grange, Ga.
Fall River Mill Supply Co.
Fall River, Mass.
Mr. Theodore Huston
2601 N. Broad St., Philadelphia, Pa.

EXCEL
Textile Supply Co.
"Excel Trucks Excel"
LINCOLNTON, NORTH CAROLINA

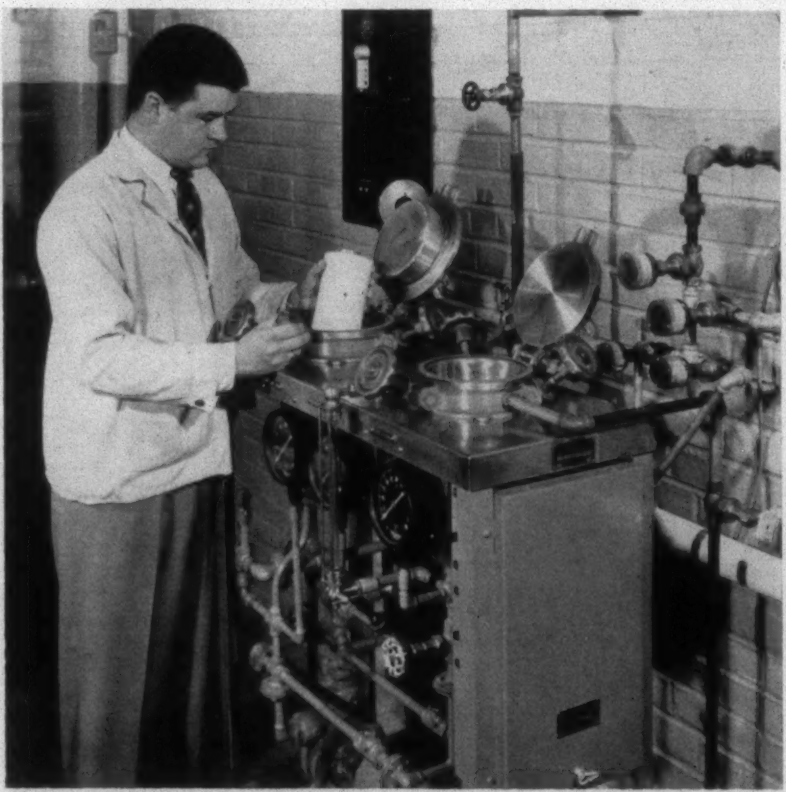
gon Baldwin Mills, division of J. P. Stevens and Co., Whitmire Plant, 2,122,341 hours without a disabling accident; award received by Plant Manager H. W. Suber and Clyde Taylor, employees. Second — Greenwood Mills, Ninety-Six Plant, 1,760,300 hours; received by Assistant Supt. A. L. Strawn and Gary C. Palmer, employee. Third—E. I. du Pont de Nemours and Co., Inc., May Plant, Camden, 1,433,629 hours; received by Manger L. M. Jones and C. L. Lyell, employee. Group B: First—Graniteville Co., Hickman division, Graniteville, 810,158 hours; received by Assistant Supt. Edward Harrigal and H. Kirkland. Second—Chicopee Mfg. Corp., Walhalla division, 621,774 hours; received by industrial relations manager S. H. Ballenger and Frank Reid. Third—Graniteville Co., Warren division, Graniteville, 608,695 hours; received by C. E. Jay and Oscar McCullough. Group C: First—Woodside Mills, Fountain Inn Plant, 455,800 hours, received by Manager Joe L. Edwards and Deattie Lyda. Second—Graniteville Co., Vaucluse division, Graniteville, 350,245 hours; received by Hugh Turner and Glen Franklin. Third — The Abney Mills, dryer felt mill, Greenville, 209,392 hours; received by Assistant Supt. James O. Melear and George R. Burnette.

ABERDEEN, N. C.—F. H. Johnson, president of Botany Mills, Inc., has announced that the firm eventually will construct a plant here to produce wool textiles and wool-synthetic blends spun on the cotton system. The plant will be built on a 150-acre site near Aberdeen, purchased by Botany in 1937.

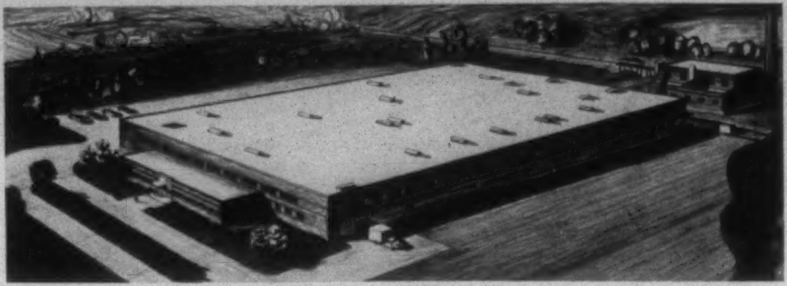
CLEMSON, S. C. — The new plant of Utica-Mohawk Cotton Mills Co., near Clemson, is now in limited production. The plant, when in full operation, will employ about 1,200 persons utilizing 45,000 spindles and 900 wide sheeting looms.

HENDERSON, N. C.—The new Belding, Corticelli plant here of Belding, Heminway Co., Inc., New York, was placed in operation Dec. 3. It is the only plant in the nation devoted exclusively to the production of Monocord threads, a new development in the field of synthetics.

PENSACOLA, FLA. — Construction offices for the Chemstrand Corp. were opened recently in Pensacola where the company is building a plant to produce nylon filament yarn under license from E. I. du Pont de Nemours & Co., Inc. Plant facilities, to be located on a 2,000-acre site along the Escambia River north of Pensacola, are being designed and built by Du Pont under terms of the agreement. The program is under



AVISCO EXPERIMENTS WITH HIGH-TEMPERATURE DYEING—A Smith, Drum high-temperature, high-pressure dyeing machine has just been installed by American Viscose Corp. in its textile research department at Marcus Hook, Pa. It is being used primarily to investigate the possibilities in dyeing Acrilan, the new acrylic fiber, as well as rayon and acetate at elevated temperatures. Although these fibers can be dyed at ordinary pressures and temperatures below the boil, it is expected that the increased speed of diffusion obtained at 220 to 250° F. will shorten the dyeing time considerably. Increased thickness of metal in this new machine permits operation up to 300° F. in a closed system with little or no air present. This absence of air permits the use of vat and other temperature-sensitive dyes at temperatures far above those at which they are adversely affected in air. This machine can be used to dye two pounds of yarn in wound package form, in cakes, or as staple. Avisco's textile research department installed this equipment recently, along with a large number of other new textile machines, to broaden still further its service to the company's customers, and to the textile industry generally.



THE NEW PLANT OF BISHOPVILLE (S. C.) FINISHING CO., a division of Reeves Bros., Inc., is shown above in the architect's sketch from Lockwood Greene Engineers, Inc. The plant, equipped with the latest machinery, will process wide and heavy synthetic fabrics. Fiske-Carter Construction Co. of Spartanburg, S. C., is the general contractor on this Lockwood Greene project.

the direction of Sam Krewatch, Du Pont field project engineer, and Fred G. Gronemeyer, chief engineer of the nylon project for Chemstrand. Offices were opened at 37 Garden Street, Pensacola. Mr. Krewatch and a team of 18 Du Pont engineers, craft superintendents and control specialists, arrived in Pensacola early this month. Roy G. Hemminghaus, Chemstrand nylon plant manager, and his staff currently are located in Wilmington, Del., working with Du Pont nylon teams preparatory to bringing the Pensacola plant into commercial production in 1953. The plant has a designed capacity of 50,000,000 pounds per year.

GREENVILLE, S. C.—Title and deeds to the school and school property, operated for many years by Union Bleachery, have been turned over by the textile concern to the Greenville County School System and School District No. 520. The school has been operated by Union Bleachery since 1910.

ELIZABETHTON, TENN.—The municipally-financed plant to be constructed here for Textron, Inc., when fully equipped, will cost an estimated $7,000,000. The plant will produce finished nylon tricot fabrics utilizing 120 knitting machines and 50,000 throwing spindles and finishing equipment. It will furnish employment for about 600 persons.

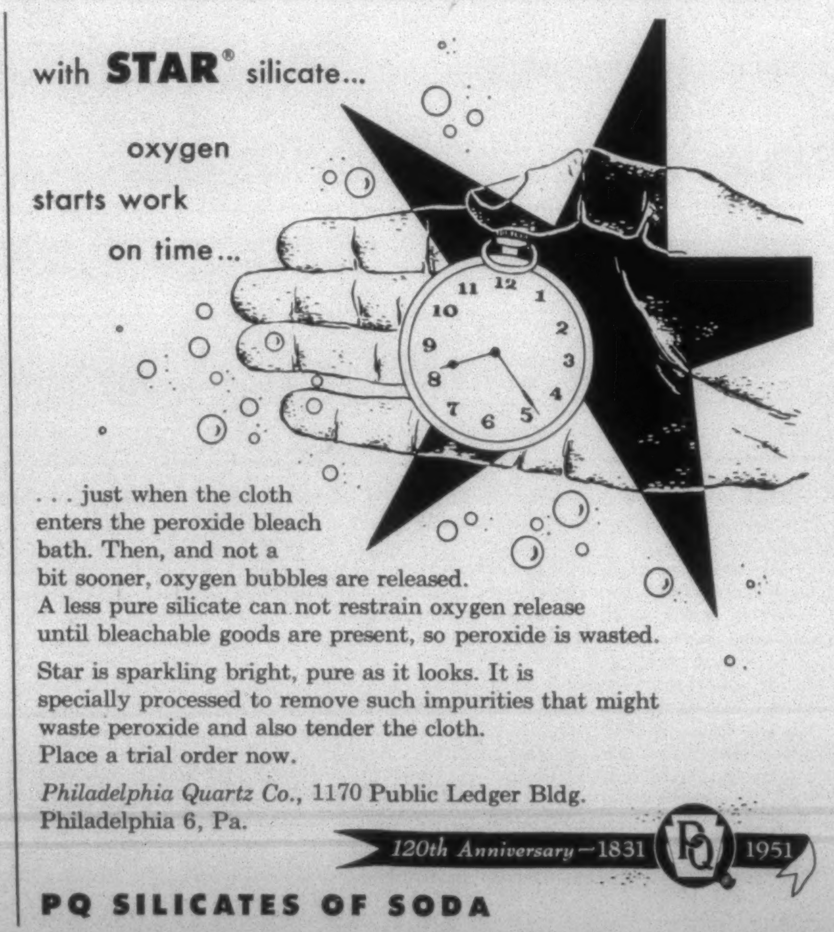
NEW YORK, N. Y.—Safie Bros. & Co., Inc., which recently completed construction of a $5,000,000 textile plant at Port of Spain, Trinidad, finds now that it is unable to operate the plant because imports of raw cotton are prohibited. Trinidad's minister of agriculture has contacted other British West Indies colonies seeking modification or repeal of the ban so that the idle plant may be put into operation.

LEBANON, TENN. — It is reported that Firestone Tire & Rubber Co. is considering construction of a $5,000,000 textile plant here for the production of tire cord. The company took an option on a site here recently after surveying sites in various sections of the South.

PARKERSBURG, W. VA.—First fiber glass was produced recently at the new fiber glass division of Libbey-Owens-Ford Glass Co. in a plant on which reconstruction operations started last March, it was announced by G. P. MacNichol, Jr., vice-president. "The first output of this plant is destined for the United States Navy on a contract issued shortly after the work on the plant began," said Mr. MacNichol. "This is superfine 'A' fiber used for flotation purposes." There are 160 employees on the Fiber Glass Division payroll, with half of them now in training for their new duties, and more being added each day. D. L. McClure, factory manager, said first operations of the plant got off to schedule and additional machines will be put into production as rapidly as possible. A unit for production of superfine fibers for automotive, aircraft, refrigeration, and other industries was scheduled to start Dec. 15.

LANGDALE, ALA.—A three-story addition to the Langdale Plant of West Point (Ga.) Mfg. Co. is under construction, with completion scheduled for April, 1952. The plant will be used to increase the company's cotton duck production. Designed by Robert & Co., Atlanta, the building will be of brick, supported by concrete piling, and will cost $199,609. Machinery to equip it will cost another $400,000 and other equipment, such as humidifiers, air changers and sprinkler and ventilation systems will cost $78,390. Orders have been placed for spinning frames, cards, drawing and other equipment in order that production may be started immediately on completion of the building. The 5,000-spindle increase will add 40,000 pounds of cotton duck a week to the plant's present production and will call for 49 additional workers on a three-shift operation.

GREENSBORO, N. C. — Films depicting Burlington Mills' manufacturing operations have been shown to sizable audiences in England, Hungary, Sweden and India, it has been reported to the company by the United States Department of State. The films, titled "Fabric of Our Lives," show how hosiery, ribbons and various types of fabrics are manufactured in Burlington plants, show employees at home, at work and at play. Originally designed to be shown only to Burlington Mills employees, the pictures have been shown widely outside the company in response to requests by clubs, civic bodies and other interested groups. Last year two prints were donated to the Department of State's Office of International Information for use in its overseas information program. Between January and June this year, the State Department reported, the industrial film was shown 14 times in England and Hungary.



with **STAR**® silicate...

oxygen
starts work
on time...

. . . just when the cloth enters the peroxide bleach bath. Then, and not a bit sooner, oxygen bubbles are released. A less pure silicate can not restrain oxygen release until bleachable goods are present, so peroxide is wasted.

Star is sparkling bright, pure as it looks. It is specially processed to remove such impurities that might waste peroxide and also tender the cloth. Place a trial order now.

Philadelphia Quartz Co., 1170 Public Ledger Bldg.
Philadelphia 6, Pa.

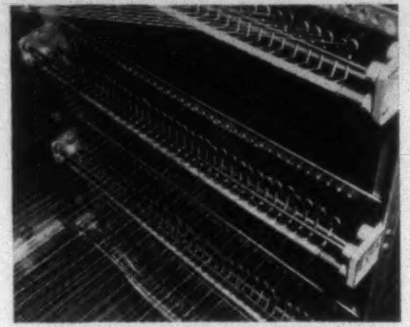
120th Anniversary—1831 PQ 1951

PQ SILICATES OF SODA

For the Textile Industry's Use

EQUIPMENT — SUPPLIES — SERVICES — LITERATURE

McBride Stop-Motion



New drop wire designs for individual ends have been announced on the McBride stop-motion assembly for the SRM magazine creel. The individual units manufactured of sheet metal rather than bent wire provide faster and truer action with less wear and less danger of mis-alignment. Eyes are inset glass or porcelain, as desired. Further information concerning the improved McBride stop-motion may be obtained from the Edward J. McBride Co., Inc., Philadelphia, Pa.

Surface Active Agent

American Cyanamid Co. announced Dec. 11 the recent development of a new surface active agent, Decerosol SE. Its stability, good detergent, rewetting and surface tension lowering characteristics indicate that it will be useful to numerous industries including textile, paper, plastics and surface coatings, the company states.

In experimental use in the textile industry, it has proved an extremenly efficient aid in stripping vat-dyed rayon and cotton fabrics and in stripping metalized dyes from wool. In applying metallized dyes to wool, Decerosol SE permits a reduction of as much as 50 per cent in the amount of sulfuric acid in the bath. When used with a suitable non-ionic surface active agent, it reduces scumming of the dyebath, increases the color value, improves dye levelling and reduces cracking.

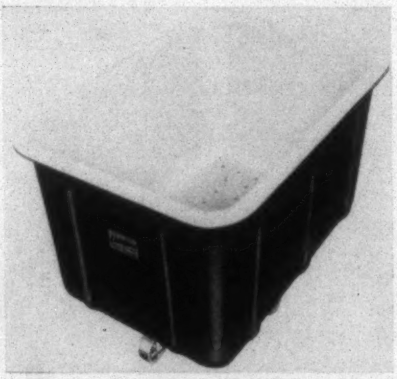
The new product is an active detergent in acid media, in hard water, and in salt solutions, and is an effective cationic scouring agent for wool and other textile fibers. As a wetting agent, it is effective for both textile and paper, particularly in rewetting papers that have been treated with wet-strength resins. When applied to cellulosic materials such as textiles and paper or other negatively charged products, it reverses the normally negative surface charge to produce a positive surface charge. The products, thereby, become substantive to anionic materials.

The new product, a guaternary ammonium compound, is a 50 per cent solution of stearamidopropyldinethyl-B-hydroxyethylamonium chloride in an isopropanol-water mixture. It is a light straw-colored liquid, soluble in water in all proportions.

Yale & Towne Bulletin

A new 12-page brochure describing its complete line of electric trucks in capacities from 1,000 to 100,000 pounds has been prepared by the Philadelphia Division, Yale & Towne Mfg. Co. The booklet describes generally, the types of Yale electric trucks available, their features, a table to aid in selection, and application data. For a copy, write to the company at 11,000 Roosevelt Boulevard, Philadelphia 15, Pa., for Bulletin P5151.

Laminex Textile Trucks



The Laminex Corp., Fall River, Mass., announces its new line of molded Fiberglas trucks. Light-weight and easily cleaned, each truck is molded complete in one piece, embodying several special features. Unit molding eliminates the need for rivets, bolts, nuts, screws or other fastening devices apt to snag such materials as yarns and fabrics. A rounded reinforced top rail is built in, and vertical ribs are built in to supply extra strength. The result is a strong, smooth interior and exterior finish with controlled wall thicknesses. All horizontal and vertical corners have a gently curved radius which makes them easy to drain and clean.

These new-type Laminex trucks are non-conductive to static electricity and can withstand all chemicals commonly used in such processes as dyeing and finishing as well as in yarn conditioning. Construction is such that in event of accidental damage any truck can be repaired by unskilled labor right on the job.

Propelled on easily replaceable casters of several choices, Laminex molded Fiberglas textile trucks are provided in a range of sizes from a small lace yarn model to a large dyehouse truck capable of handling 3,500 pounds of wet goods. Data on trucks for all plant uses are available from Laminex Corp. at 994 Jefferson Street, Fall River, Mass. "Ideal for use in finishing plants and in connection with synthetic yarns and fabrics," is the claim.

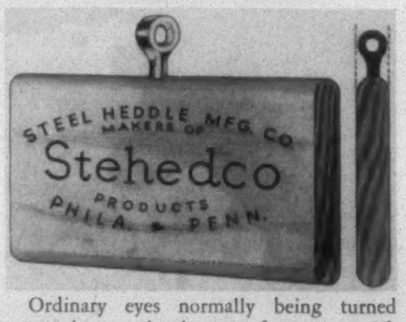
Reilly Booklet

Reilly Tar & Chemical Corp., 1615 Merchants Bank Bldg., Indianapolis, Ind., has published a new 24-page booklet on Reilly protective coatings for metal surfaces exposed to corrosion, tuberculation and incrustation. Covering hot application enamels, primers and coupling compounds, cold application enamels and bituminous paints, the booklet outlines properties, uses, containers, performance tests and application procedure for coatings; handling, storage and inspection of protected surfaces; plus field notes on application which include quantities of enamel needed for various pipe sizes. Photographs of pipe and other surfaces which have been protected with Reilly enamels illustrate the booklet. Copies are available on request.

Warwick Finish Available

Setole H-59, a special conversion of a root starch complex for building up the "hand" of water repellent fabrics, is being produced by the Warwick Chemical Co., division of Sun Chemical Corp., and is now available. There has been a continuing need in the textile field for renewable water repellent finishes which build up a fabric. The fabric, after jig dyeing, is batched, then immersed in the necessary concentration of Setole H-59, squeezed and dried before passing through the required concentration of the Impregnole water repellent. For technical and sales information contact Warwick Chemical Co., division of Sun Chemical Corp., 10-10 44th Avenue, Long Island City 1, N. Y.

Damage Control Device



Ordinary eyes normally being turned cross-wise to the harness frame or stick cause a great deal of damage to adjacent frames because their outside diameter exceeds the thickness of the "stick." In order to eliminate this the Steel Heddle Mfg. Co., Philadelphia, Pa., has developed what is

LET'S CONSIDER WORKMANSHIP

. . . in relation to the criterion of customer satisfaction which is requisite for production at Gastonia Roller, Flyer and Spindle.

Customer tested, customer approved, top-quality workmanship is yours to depend on when you use our services for all repairs to your rollers, flyers and spindles. The QUALITY of our workmanship is supported by skill, experience and know-how; is guaranteed to satisfy without reservation.

We invite you to acquaint yourself with our services—to test the quality of our workmanship.

Gastonia Roller, Flyer & Spindle Co., Inc.

1337 W. Second Ave. Gastonia, N. C.
Phone 5-1531 or 5-1030

Greater efficiency of LAUREL soaps, oils, finishes keeps your wet processing costs down —

Whether for fashion or industry, your yarns or fabrics will win greater favor, give greater service . . . and cost you less when they're processed with Laurel soaps, oils, finishes. Scientifically developed, laboratory-and mill-tested, Laurel wet processing agents are pure, uniform, dependable. Processors find Laurel products yield smoother, more efficient production, better dyeing, bleaching, finishing. Write or call the Laurel Technicians for recommendations.

Laurel Hydrosol
Laurel Wool Oils
Laurel Emulsions
Laurel Nynit C
Laurel Hosiery Finishes

textile soaps, oils, finishes
LAUREL SOAP MANUFACTURING CO., Inc.
Wm. H. Bertolet's Sons
ESTABLISHED 1909

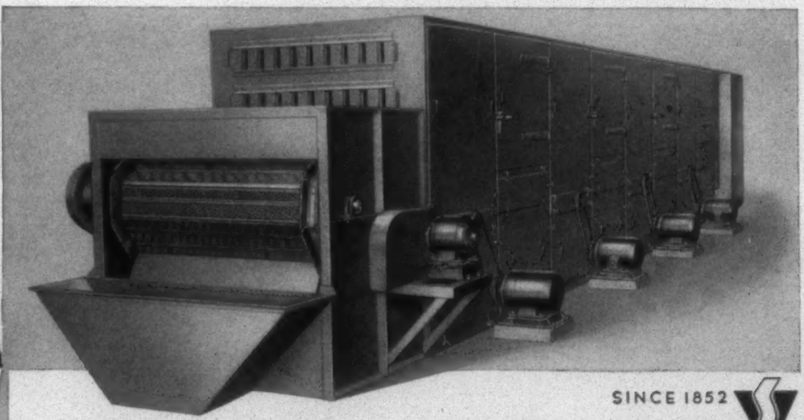
2607 E. Tioga St., Philadelphia 34, Pa.

WAREHOUSES:
Paterson, N. J.
Chattanooga, Tenn.
Charlotte, N. C.

for WOOL, COTTON, RAYON and other Synthetics and LOOSE MATERIALS

★

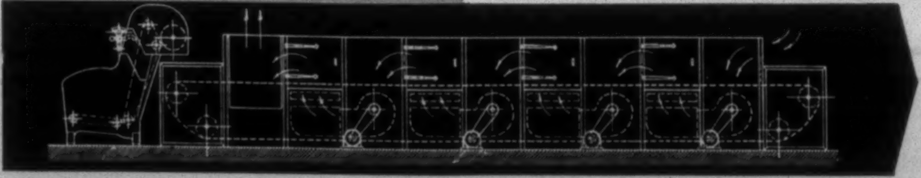
SARGENT'S CONTRA-FLOW Single Apron Dryer



SINCE 1852

Employs the counter-air-flow heating principle to provide rapid, economical drying.
New, fast, completely automatic.
The material and the air drying it enter the dryer at opposite ends and travel through in opposite directions. Wet material is subjected first to wet, hot air, then progressively to dryer, cooler air, emerging DRY, at ROOM TEMPERATURE.
No heat loss . . . No overheating of dry material.
The most efficient machine ever developed for drying loose materials.
For complete information please write for Bulletin No. 183.

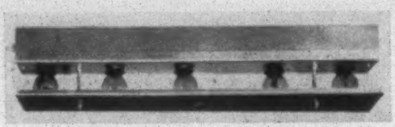
C. G. SARGENT'S SONS CORPORATION
Graniteville, Massachusetts, U.S.A.
LARGEST MANUFACTURERS OF STOCK DRYING AND WOOL WASHING EQUIPMENT IN AMERICA



Schematic diagram of the SARGENT CONTRA-FLOW SINGLE APRON DRYER showing direction of travel of air through fans and heating elements. Material travels in opposite direction.

known as the "flattened eye." The novel feature of this new Stehedco eye is that while the inside diameter of the eye is round and the same size as a standard eye, the outside is so flattened that it will not exceed the thickness of the frame, but retains its original strength. Stehedco "flattened eyes" may be obtained in either the unbrazed or brazed types.

Air-Tron Lamps



Roy C. Stove & Co., Chicago, Ill., has placed on the market a new unit for ultra-violet ray ozone air treatments in textile mills and other industrial plants. The fixture illustrated is the Air-Tron five-lamp unit which can be installed in toilets, wash rooms and other areas in textile mills. The fixture is equipped with the No. S-11 Westinghouse Odorout lamp with a life expectancy of 4,000 hours. Air-Tron produces ozone which is an oxidizing agent having the power of destroying odors, also of creating the fresh smell of outdoor air. This lamp also produces ultra-violet rays which destroy air borne bacteria and algae. The Adorout lamp uses only 3½ watts of power and can be burned continuously at very small cost.

In addition to the five-lamp unit other Air-Tron fixtures are available for installation in air conditioning and heating systems to combat the "hidden lost time" of employees caused by air borne bacteria which bring on colds, influenza, pneumonia, etc. Fixtures also can be obtained which have the power to destroy mildew and other molds always prevalent in textile operations.

This equipment is distributed in the Carolinas and Georgia by J. E. Foote & Associates, 1605 Elizabeth Avenue, P. O. Box 6162, Charlotte, N. C.

Synthetic Wax Improved

Acrawax C, a synthetic wax with the very high melting point 140°-142° C. (280°-285° F.) has been greatly improved in color stability toward heat. This has been accomplished by an improved manufacturing process which also makes possible a substantial price reduction. Acrawax C is a light tan, hard wax, which is supplied in atomized, powdered and coarse ground forms, as well as in the solid cast form. In many instances it is necessary to melt it, either alone or with other waxes, resins, etc. In the new improved grade, the darkening is definitely minimized. This factor is of special interest where color stability of the high melting point synthetic wax is important. Acrawax C is used as a water repellant for textiles. The new color-stable grade of Acrawax C should make this product of wider interest and should open new fields for its use, particularly in view of the reduction in price. Data and samples are available from the manufacturer, Glyco Products Co., Inc., Brooklyn 2, N. Y.

Ready Dissolved Naphthol

Plans to increase its production of ready dissolved naphthols which save time, labor and spoilage in the textile dyeing field are now being made by the Augusta (Ga.) Chemical Co., it was made known recently by Henry I. Gilbert, president. Introduced just over a year ago, the Augusta product, known as Naf-Sol, is now being supplied to 50 textile firms for easier dyeing. The growing popularity of packaged, liquid naphthols is due to the difficulties of putting dry naphthols into solution for dyeing at the textile plant. Varying dyeing results are eliminated and the dyeing of textiles simplified by the Augusta product.

Texize Plans Addition

Texize Chemicals, Inc., Greenville, S. C., manufacturer of textile chemicals, as well as household items, recently announced plans for an addition to its plant in Greenville. W. J. Greer, president, revealed that the new addition will add 9,000 square feet of space, doubling the plant's size. The addition will cost approximately $60,000.

Fire Safety Bulletin

A forward step in the Factory Mutuals' constant program of improving fire safety in textile plants is described in its new Loss Prevention Bulletin No. 15.04. It makes specific recommendations for safer electrical equipment in hazardous locations that involve quick-burning lint and fibers. Highlighting the bulletin is a chart which classifies, for the first time anywhere, hazards connected with any process or fiber. A quick glance at the table enables one to recognize quickly close-to-home hazards and plan accordingly. The bulletin may be obtained through the Factory Mutual Engineering Division.

Model B Gentle-Air

Bachmann Uxbridge Worsted Corp., makers of the Uxbridge Gentle-Air dryer for slashers which has received wide acceptance throughout the industry, has announced a new hot air slasher dryer which will be known as the Model B Gentle-Air. Capable of producing up to 750 pounds per hour, at amazingly low steam pressures, the Model B is smaller in size to permit installations in cramped quarters where the Model A could not fit; has slightly less capacity for those mills which do not need the tremendous production of the Model A; sells for considerably less and is constructed from standard parts and fittings which can be obtained from any reputable supply house.

The Model B is designed to fit between existing front and back ends of conventional slashers and will handle section beams up to 72 inches between heads. It features air nozzles which reduce the air velocity generated at the fan and distribute the air in an even pattern through the yarn sheet. Drying is uniform from selvage to selvage. The yarn is dried without rolling. Rubber squeeze rolls can be used in the size vat without any flushing of size. Knots size perfectly—do not separate.

Another feature of the Model B is the easy accessibility of all parts for cleaning and servicing. Only 15¾ yards of yarn are in the dry box at any one time and instant; automatic cooling prevents yarn damage from long exposure to high temperatures. Completely insulated, there is little heat loss into the room.

The Model B is the result of eight years of experimentation and actual mill operation of the Model A dryers during which time many different kinds and counts of yarn were successfully dried at high speeds. The amazing record of the Model A can be summed up in the statement that 65 per cent of all Gentle-Air users have re-ordered.

Butt-Seaming Sewing Thread

FOR CLOTH ROOM STITCHERS AND BLEACHERY SEWING

ALL NUMBERS
CARRIED IN STOCK FOR
Immediate Delivery

SIGNAL SALES COMPANY, INC.
JAMES BUILDING • PHONE 7-7171 • CHATTANOOGA, TENNESSEE

It is estimated that an additional 25 per cent have ample capacity with just one Gentle-Air.

More perfect fabrics are obtained and seconds are greatly reduced because the size stays on the yarn, the company claims. It cannot migrate since the yarn is 60 to 70 per cent dry before any contact is made in the drying chamber. Since the yarn is no longer tacky, lapping is minimized and there is little or no size transfer to rolls. Stretch can be kept at a minimum. Heated air circulation is instantaneous. There is no warming up period. The drying chamber is completely insulated to prevent heat loss and to reduce operating costs.

New Dyestuff Circulars

General Dyestuff Corp. announces the release of the following new circulars: G-694—Fastusol Brown 5GA; G-697—Celliton Black BGA for Printing; G-698—Celliton Fast Violet 6BA-CF for Printing; G-699—Indiathrene Brilliant Green B Double Extra Paste Fine; G-700—Celliton Fast Pink BA-CF; AP-16—Nekal BX High Conc.

New Warwick Penetrant

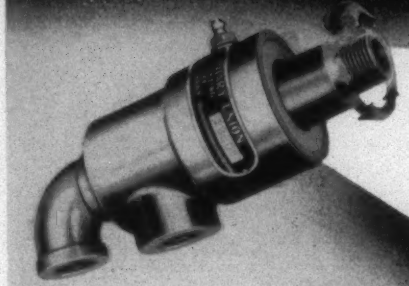
Eumercin HRC, a substituted cyclic penetrant is being produced by the Warwick Chemical Co., division of Sun Chemical Corp., and is now available. This is a new addition to Warwick's Eumercin line and is effective in caustic soda solutions of approximately 90° Tw. This product is used effectively in plisse work. For technical and sales information contact Warwick Chemical Corp., Division Sun Chemical Corp., 10-10 44th Avenue, Long Island City 1, N. Y.

Streamline Distribution

The formation and organization of Acme Steel Products Division of Acme Steel Co., Chicago specialty strip steel manufacturer, was announced last month by Carl J. Sharp, president. The new division will operate and function, effective Jan. 1, 1952, as an independent sales and distributing company for steel strapping, tools and accessories, stitching wire and equipment, as well as other related industrial strip steel products. Previously, these products were sold through the company's internal Consumer Products Division. Sales of strip steel and special products will remain with the parent company as will all manufacturing and production operations.

President of the new Acme Steel Products Division will be John G. Bucuss, former general manager of the strapping division. With the company for 33 years, Mr. Bucuss is also current president of the Materials Handling Institute. Assisting him as vice-president, stitching wire, will be F. Raymond Grove, Sr., former general manager of the stitching division. Grove has been with the company 41 years. Percy L. Dafoe, previously central area manager, has been appointed vice-president and general sales manager of the new division. Field sales officers will be: Homer H. Clark, vice-president, Eastern area, New York City; Squire J. Johnson, vice-president, Pacific

ROTARY UNIONS
(TRADE NAME)
A REVOLVING STEAM CONNECTION
Pipe Size 1/4" through 3"



Give Your Pipe Wrench a Rest

Here is the only rotating steam joint in the world good enough to be *guaranteed* to operate at least one year without any kind of adjusting or tightening labor. Most ROTARY UNIONS run much longer without such service . . .and they seal perfectly all of the time. Oh Happy Day for maintenance mechanics!

ROTARY UNIONS require no complicated piping and brackets and can be installed in a few minutes. When they become worn, as all equipment finally does, they can be factory reconditioned at a fraction of their original cost, and returned to you with a good-as-new guarantee.

Don't struggle with stuffing boxes, packing joints, and ordinary steam joints on your slashers, dry cans, calenders, printing, and coating machines. Save trouble, labor, and down-time by equipping them with ROTARY UNIONS. Write for Catalog 600 B for full information.

PERFECTING SERVICE COMPANY
332 Atando Ave. (Home Office and Factory), Charlotte, N. C.
Offices in Chicago • Cleveland • Philadelphia • Providence • Jersey City
"WHERE *Good Connections* COUNT"

Carolina LOOM REED CO.
Made their way by the way they're made

A *Carolina Reed*

Manufacturers of
ALL METAL
and
PITCH BAND
REEDS

P. O. Box 1536 GREENSBORO, N. C. Phone 2-3037

Coast area, Los Angeles; W. Sheridan Huss, vice-president, Southern area, Atlanta; and John W. Karstens, vice-president, Central area, Chicago.

Commenting on the executive appointments and changes, Mr. Sharp said, "While this will be a new company, the officers and personnel will include those who have contributed so much to the development and promotion of these products during the past 25 years. The seven officers alone represent 224 cumulative years of company and product experience, and are well known to the Acme Steel family and to our thousands of customers. They are most deserving of this recognition in view of the superior service they have rendered our company. It has been their enthusiasm and energy that has made possible our continued success."

Waste Firm Expands

International Corp., cotton waste firm of Atlanta, Ga., is expanding its facilities with erection of a big new warehouse. The new warehouse, now under construction in the Peachtree Industrial Boulevard area, will have 30,000 square feet of space on one floor. From 6,000 to 8,000 bales of cotton waste can be stored there. Of concrete and steel construction, the warehouse is served by a siding of the Southern Railway System. It will have four rail car loading docks and two truck docks. Future plans are that a duplicate building, to house a utilization plant, will be erected opposite the new structure on the other side of the rail siding.

Hercules CMC

The many important applications for Hercules CMC, and its physical and chemical properties, are fully described in a new technical booklet published by Hercules Powder Co., Wilmington, Del. The booklet is intended to give the reader an indication of how CMC might help him solve his technical and economic problems. Hercules is the only company which manufactures both the purified and technical grades of CMC. Information on types available, viscosity, compatibility, and other pertinent data is contained in the booklet. A bibliography lists most of the published literature appearing in recent years on this chemical.

Draper Acquires Walker

The Draper Corp., Hopedale, Mass., announces that it has acquired the operating property of Walker Mfg. Co. and intends to continue the operation heretofore carried on in Walker's Philadelphia plant. The 76-year old manufacturer of quality reeds, heddles and loom harness will be known as the Walker Division of Draper Corp. In accordance with Draper's long-standing policy, a complete modernization of the Walker plant is in process. There is no change in personnel contemplated at present.

New Textile Expander

Development of a three-inch diameter covered roll-type expander for textile plants which is designed to meet the stretch requirements of every fabric from light rayons to ducks or tire cord fabrics and rolled sheet plastics has been announced by Raybestos-Manhattan, Inc., Manhattan Rubber Division, Passaic, N. J. In addition to requiring a minimum of space because of its small diameter, the Manhattan expander turns easily under low or high tension. According to the manufacturer, Manhattan's Parockite bearings reduce maintenance costs because they are permanently self-lubricating and have a low coefficient of friction. Metal parts are of stainless steel construction, and with a thick high quality rubber roll cover provide an expander that is resistant to corrosive conditions found in dyehouses and bleacheries. Bulletin No. 6918 describing the Manhattan expander may be obtained on request.

Expand Laboratory

Completion of construction of a new wing to the textile dyestuff laboratory and installation of new equipment are announced by James F. Thompson, general manager of the Hilton-Davis Chemical Co., Cincinnati, Ohio. The addition doubles the size of the laboratory, providing increased facilities for standardization of the company's growing line of dyestuffs for the textile industry, as well as facilities for special customer services. The laboratory was constructed two years ago.

The expansion provides a new glass-top weigh-up room for preparing samples of dyes. This section has been separated from the rest of the laboratory, preventing the dyes from contaminating the air in other units. New equipment installed includes the latest models of textile testing apparatus, such as a fadeometer for checking the light fastness of dyes and pigments. Additional print and padding machines are among other equipment obtained for the laboratory wing.

New Gibson Line

A completely new line of industrial lighting fixtures has been announced by Gibson Mfg. Co., Atlanta, Ga. These fixtures have been designed and produced to give more uniform illumination to all surfaces within the arc of the reflector plus excellent shielding. They are finished to provide the toughest possible resistance to oxidation in installations where extreme humidity and other adverse atmospheric conditions prevail.

The reflector is formed in a perfect parabola with the outside lamps at the center of curvature, or focal point, to provide maximum uniformity of down-light over working area. Longitudinal shield, for greater lateral shielding, is available for all two lamp fixtures. There are no welded sections. Each part is scientifically treated against oxidation, then assembled with cadmium plated screws and finished individually with two coats of hot bonded hi-baked enamels.

Gibson industrial units are adaptable to all types of mounting. End panels completely cover edge wire way channel and are provided with three-quarter-inch and one-inch conduit knockouts. The end panels are easily detached and channel coupler added to make a completely closed channel any length.

The new Gibson industrial line includes models in four-foot, five-foot, and eight-foot conventional for bi-pin lamp and four-foot, six-foot, and eight-foot mono-pin slimline both two and three-lite. Parabolite, the top quality industrial series, is wired with turret sockets, and is available in all porcelain, or all hi-baked enamel, to spe-

Pioneer
HEDDLE and REED COMPANY
OF ATLANTA
P. O. BOX 116 – STATION A – PHONE RAYMOND 2136
Manufacturers of HEDDLES - HEDDLE FRAMES and ACCESSORIES
LOOM REEDS for any type fabric, COMBS, DROP WIRES and BARS for profitable production of Quality Fabrics

cification. Nadalite, the medium priced industrial series, with all ETL approved ballasts, starters and "white" sockets, are smaller units with narrower lamp spacing. Special series are four lamp fixtures with the same quality components as Parabolite. Scotty series feature shallow channel to accommodate narrow cross section ballasts.

New Combined Fungicide

Quindex W. R. 10 per cent, new fungicide manufactured by Nuodex Products Co., Inc., of Elizabeth, N. J., makes possible a one-bath treatment for textiles requiring both mildew resistance and water repellency. This fungicide contains solubilized copper 8-quinolinolate and highly effective water repellents to meet a number of govern specifications for webbing, cotton duck, twill and other textiles used by the Army and Navy. Besides giving optimum mildew resistance and excellent water repellency, Quindex W. R. 10 per cent dilutes easily at room temperature and makes for a more uniform solution which stays more evenly dispersed than was possible with earlier forms of this compound. It also assures "fool-proof" control by textile proofers and finishers because the copper 8-quinolinolate content is standardized and no other copper compounds are used. Among the products which government specifications require to be treated in this manner are cotton duck, twill and webbing used in the manufacture of tents, packboards, packharnesses and various other clothing and equipage items.

Fairbanks Circular

The Fairbanks Co., 393 Lafayette Street, New York City, has made available to the industry a new circular illustrating and describing the Fairbanks line of steel framed hand trucks. The first page of the circular covers the Commander platform trucks, the center spread is devoted to the 9000 Series two-wheel hand trucks and on the last page a number of the standard special purpose trucks are shown. This circular furnishes the reader with an idea of the complete line of materials handling equipment available from Fairbanks to fill every requirement.

Hetherington Moves South

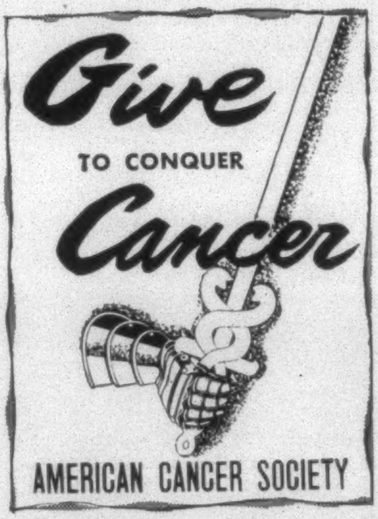
John Hetherington & Sons, Inc., dealer in textile machinery and specialties, has moved its main office and warehouse to the firm's location at North Marietta Street in Gastonia, N. C. The move will enable the company to be in a better position to give efficient service to its many customers in the South, John Knoblock, president and treasurer, explained. Thomas M. Brockman, Jr., formerly Southern representative for the company, has been elected a vice-president of the firm and will continue his work as a consultant for the organization.

Antara Changes Name

Antara Products, a division of General Dyestuff Corp., 435 Hudson Street, New York 14, N. Y., in furtherance of a $20 million expansion program in the field of surfactants, intermediates, acetylene chemicals and allied products, is now known as Antara Chemicals. The change in name became effective Dec. 1. Antara, which coordinates and handles the sales and services of all acetylene chemicals, intermediates and allied products made by General Aniline & Film Corp., was formed Oct. 1, 1950, as a merger between the original Antara Products, then a division of G.A.F., and the organic chemicals division of G.D.C. According to John C. Franklin, executive vice-president of G.D.C., the change of name to Antara Chemicals, division of General Dyestuff Corp., more accurately characterizes the general product line of G.A.F., sold by Antara. In the field of industrial surface active agents (surfactants), for example, Antara offers anionic, non-ionic or cationic detergents, emulsifiers and wetting and dispersing agents which find use in more than 30 major industries.

5-Chlorosalicylic Acid

Heyden Chemical Corp. has developed a new organic chemical, 5-Chlorosalicylic acid, which is suggested as a highly efficient "carrier" in the dyeing of dacron, Orlon, dynel, nylon, and other new synthetic fibers. The product is expected to be of special value in dyeing dacron, the new Du Pont polyester fiber, which requires special handling to be dyed in level deep shades which are resistant to fading. The present techniques for the piece-dyeing of dacron call for adding to the dye bath an auxiliary chemical as a carrier such as Heyden's salicylic or benzoic acid. Although 5-Chlorosalicylic acid would be a more expensive material even when produced commercially than salicylic or benzoic acid, it is effective in lower concentrations and may be preferred for some specialty uses in this field, Heyden suggests. Although this material is not available on a commercial scale at the present time, Heyden is interested in co-operating with any potential customers in developing a significant market for it.



HIGH QUALITY COMBED and CARDED KNITTING and WEAVING YARNS

BEAMS, CONES TUBES, WARPS

MARTHA MILLS DIVISION, Silvertown, Georgia

LARGE PRODUCTION . . . UNIFORM QUALITY . . . LATEST MACHINERY

● SOUTHERN SALES AGENTS: **Walter T. Forbes Co.** PHONE L. D. 28, CHATTANOOGA, TENN.

HOUGHTON TOP COMPANY

Dealers in Wool Tops of All Grades
Suitable for Blends With Cotton and Other Fibers

HOUGHTON
TOP COMPANY

253 Summer St.
BOSTON, MASS.

Write or Phone Our Sou. Representative
JAMES E. TAYLOR & CO.
Telephone 3-3692 Long Distance 936
Liberty Life Bldg. Charlotte, N. C.

You'll Save TIME In Your Plant With

THE KELLOGG M-5

SELECT-O-PHONE SYSTEM

Available at all hours of night or day, every minute of the year, without a switchboard operator.

Automatic, man-to-man service, not hampered by manual supervision.

Provides for secret conversations.

We Install and Maintain Under Contract.

SOUTHEASTERN SOUND & ELECTRONIC CORP.

105 Cleveland St. Greenville, S. C.

★ **CHAPMAN**

ELECTRIC NEUTRALIZER CO.
PORTLAND 6, MAINE

Write for Bulletins on CARDS, DRAWING FRAMES, PERALTAS, FOLDERS, etc. ALSO SPECIAL APPLICATIONS

Specialists in the Elimination of . . .

STATIC

SAFELY · INSTANTLY

New "M-B" Automatic AIR LINE FILTER

Affords maximum protection from water, dirt, scale, etc., in air line. Protects air-operated controls on Slashers and Humidifiers, Scott & Williams Lint Blowers, Blow-off of the Knotting Device on Barber-Colman Spoolers, Abbott Winders and Blow-off Hoses in Spinning and Weaving rooms.

Write for Literature.

M·B PRODUCTS
46 Victor Ave.
DETROIT 3, MICHIGAN

Du Pont Reorganizes Rayon Department

A reorganization of the Du Pont Co.'s rayon department to meet the requirements of its present expanding production and product lines was announced recently by Robert L. Richards, general manager of the department. The changes were effective Dec. 1.

The new plan of organization places the manufacturing of all the department's products in one division and the sales of all products in another. The rayon department produces Du Pont's man-made textile fibers—five in all—and heretofore they have been grouped into three divisions, each division handling its own production and sales. These three will be abolished and their activities taken over by the two new units.

Pointing up the wide scope of its business, Mr. Richards also announced that the name of the department will be changed to "textile fibers department," The name change becomes effective Jan. 1.

The growth in diversity of products of the department not only made the name obsolete, but required these sweeping changes in the organization to meet functional requirements of the new lines, Mr. Richards said. "While rayon remains among our principal products, the inclusion of acetate, nylon and the addition of the newer fibers Orlon acrylic fiber and Dacron polyester fiber in our business made the changes necessary."

Under the reorganized setup, Andrew E. Buchanan, Jr., assistant general manager of the department, becomes first assistant general manager. Frank B. Ridgway, now manager of the rayon division, will head all manufacturing activities as assistant general manager, manufacturing. William R. Creadick, now manager of the personnel and industrial relations division, will head all sales activities as assistant general manager, sales. Dr. Winfield W. Heckert, now manager of the technical division, becomes assistant general manager, technical.

J. Norman Tilley, now assistant manager for Orlon acrylic fiber, will become general director, manufacturing, in charge of the new manufacturing division, reporting to Mr. Ridgway. Thomas H. Urmston, assistant manager for acetate, will become general director, sales, in charge of the new sales division, reporting to Mr. Creadick.

In the manufacturing division, W. S. Carpenter, III, now assistant director of production for rayon, becomes director of manufacturing, acetate; George E. McClellan, now assistant manager of the rayon division, will become director of manufacturing, rayon; William T. Wood, assistant manager for Dacron polyester fiber, will become director of manufacturing, Dacron; Charles M. Switzer, assistant manager for nylon, will become director of manufacturing, nylon; and Dr. Lester S. Sinness, assistant manager of the technical division, will become director of manufacturing, Orlon.

In the new sales division, Philip F. Brown, now director of sales of the rayon division, will become director of sales for rayon and acetate, and sales of all Du Pont fibers to the rubber industry; Malcolm G. Jones, director of nylon sales, will become director of sales for nylon, Orlon and Dacron; and Joseph A. Dallas, manager of the planning division, will become director of sales service. No changes in the district sales offices are contemplated at this time.

Dr. G. Preston Hoff, now manager of the acetate division, will become manager of the planning division. Dr.

George W. Filson, manager of the nylon division, will become special assistant to the general management.

Under the previous organization, the acetate division handled the manufacture and sale of acetate and Orlon acrylic fiber, producing acetate fiber at Waynesboro, Va., and Orlon at Camden, S. C. The rayon division handled both sales and production of rayon, with plants at Buffalo, N. Y., Old Hickory, Tenn., and Richmond, Va. The nylon division produced nylon yarn in plants at Seaford, Del., Martinsville, Va., and Chattanooga, Tenn. It also handled the development of Dacron polyester fiber and a plant for manufacturing it is now being built at Kinston, N. C. No changes in operation of the plants are contemplated.

The department now employs more than 24,000 men and women. It is an outgrowth of a business that was launched by Du Pont in 1920 when it started rayon production in Buffalo, N. Y., as the Du Pont Fibersilk Co. In 1925, shortly after the artificial silk industry had adopted the name "rayon" for its principal product, the name of the organization was changed to the Du Pont Rayon Co. It became the rayon department of the company in 1936. Thus the descriptive "textile fibers department" will become the fourth name the organization has had.

Plan To Increase European Productivity

A three-fold long-range plan to increase Western European productivity and assure survival of free enterprise in Europe was outlined Nov. 26 by Herbert L. Werner, head of Werner Textile Consultants and P.O.M. Co.-Industrial Consultants before 41 top Western European textile industrialists at the St. Moritz Hotel in New York. Part of a two-week program planned by the Economic Co-operation Administration and the National Association of Manufacturers, the session represented the first International Textile Management Conference, and was attended by textile industrialists from 16 different countries.

Mr. Werner's three-fold plan urged European industrialists to: (1) Change their mental attitudes toward employees, markets and business practices in general. (2) Place greater stress on human relations in all aspects of their business activities. (3) make special efforts to inculcate in their young people such American principles as the dignity of the individual, equality of opportunity, the importance of self-reliance and understanding rather than fear of authority.

Regarding the mental attitudes of European management Mr. Werner stated: "European management would do well to study the efforts of American management in offering employees incentives for greater productivity in the form of better working conditions, actually increased earning opportunities, and virtually unlimited opportunities for advancement over the long run. The greatest force that makes American workers so productive is that they are free to determine their own individual destinies, and they know that by working hard they can get ahead—and get ahead fast. European management must help their employees achieve this 'opportunity unlimited' attitude.

"So far as markets are concerned, European managements have much to learn in the way of market research, product research, promotion, advertising, selling and pricing methods. A more aggressive attitude and a determination to develop their own markets more intensively would reward them with an expanded volume of business."

With regard to placing greater stress on human relations in all aspects of their business activities, Mr. Werner de-

TILTON

Woven Endless Belts

Uniformly Strong
Eliminate vibration and transmit maximum power without slippage.

Constant Length
Practically all stretch and shrinkage taken out at factory.

Flat and Round
Card Bands • Lickerin Belts • Doffer Belts • Cone Belts • Belts for Driving Flats.

Exclusive Agents in Virginia, the Carolinas and Georgia

Oliver D. Landis, Inc.

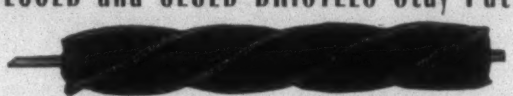
718 Queens Road Charlotte 7, North Carolina

TELEPHONE 5-0371 WORKS N MARIETTA ST

BARKLEY
MACHINE WORKS
MANUFACTURERS OF
TEXTILE MACHINERY
PARTS

GASTONIA, NORTH CAROLINA

PEGGED and GLUED BRISTLES Stay Put!



LONGER LIFE—Spiral card brushes, refilled the Gastonia way, last from 10 to 15 years, compared with 2 or 3 years when staples are used—for STAPLES WILL NOT STAY PUT IN SOFT WOOD. Gastonia first dips the bristles and fiber in glue, then they are permanently pegged in.

BETTER FINISH—To prevent lint from collecting on rolls, Gastonia paints them with high-grade bobbin enamel, which dries to a hard, glossy finish. Brushes can be refilled and returned in two days. Freight is paid one way.

J. T. HARRELL, PRES. AND MGR.

GASTONIA BRUSH COMPANY

Phone 1708 **GASTONIA, N. C.**

clared that the Western European textile leaders could learn a great deal from American textile leadership in its efforts to promote safety, good health and happiness among their employees. This means, he emphasized, greater interest in employee welfare; providing better light and comfort and more pleasant surroundings; offering more opportunities for education and advancement; paying greater attention to recreational facilities outside the mills such as organized sports, and club activities. Moreover, Mr. Werner added, human relations extend far beyond the confines of employee relations—they include relations with consumers; relations with competitors; relations with stockholders, and relations with the general public.

"The young people of Europe hold the key to the future success or failure of European industry," Mr. Werner stated, "and they must be inculcated with the importance of self-reliance. The high standards of living which American workmen enjoy is largely the fruit of their efforts, and not the result of paternalism or fortuitious circumstances, such as the fact that the United States has such rich natural resources. Other nations, such as Russia, also have rich natural resources, but can only develop them slowly by the use of workers with little or no incentive or by slave labor. That is why American management and labor can yield such miracles of industrial production. Both management and labor have incentives and are unfettered."

Giving Europe full credit for a number of technological advances in the field of textile machinery and processes, it was emphasized that many of these had come to full fruition only in America in an atmosphere of free interplay of the various economic forces. European cartels and similar arrangements were called "a hindrance to an expanding European consumer market," and a detrimental factor in raising productivity and general standards of living.

Informal exchange of ideas on modern management methods highlighted the conference. Participating with Mr. Werner in the symposium were the following members of the Werner-P.O.M. staff: Rudolph M. Ashner, partner; William B. Sears, chief engineer; Stephen I. Rudo, research director, and Robert Borden, senior field engineer. They spoke respectively on "Management—Its Objectives and Methods;" "Machinery—Its Utilization By Management;" "Materials—Selecting and Testing of Natural and Artificial Fibers;" "Manpower—Selection, Training and Advancement." "Modern Methods of Marketing" was covered by Kendrick J. Hurley, partner of the Piedmont Southern Co.

A CONTINUOUS SPRAY RATING OPERATION set up in the booth of Atlantic Chemical Co., Inc., was a feature of the recent A.A.T.C.C. exposition in New York City. The machine demonstrated hydrostatic pressure resistance and resistance to water spray of military and civilian fabrics treated with Atco-Dry water repellents. Also in the Atlantic Chemical booth were demonstrations of the firm's new Merpene Special, a mercerizing penetrant, and ATCO'S new anti-static products for synthetics.

Present at the First International Textile Management Conference were top textile industrialists from the following 16 Western European countries: England, Switzerland, Ireland, Holland, France, Norway, Germany, Greece, Italy, Belgium, Portugal, Denmark, Austria, Sweden, Scotland, and Iceland. During their stay in this country they also visited plants in the New England area and in the Southern states.

Twenty-one representatives of the Netherlands' spinning and weaving industry also were in the U. S. last month, in search of ways to raise their productivity, which is estimated at 30 per cent below that of American firms in this industry. This group visited American textile firms and conferred with textile specialists under the auspices of the E.C.A.

The Netherlanders arrived in this country on Oct. 29 and departed for their homeland on Dec. 8. Members of the team were:

Johan Anton Panhuyzem, managing director Central Bureau of Netherlands, Cotton, Rayon and Linen Industry, who served as the team leader; Gerrit Elshof, N. V. Katoemy v/h Gebr. Scholten Bros. & Co., the team secretary; and Cecile Anny Kanteman, N. J. Menko N. V. N. V, Spinnerij Roombeek, assistant to the secretary. The rest of the team was divided into specialty groups of spinners and weavers. *Spinners:* Theodorus A. De Jong, Textile Workers Union of The Netherlands; Geert Diephuis, United Cost Accounting Offices; Friedrich Grevinga, Koninklijke Royal Netherlands Cottonspinning Mill; Friedrich Carl Ludin, H. P. Gelderman & Sons, Ltd.; Johan Van Straaten, trainer ringspinners, H. Ten Cate Hzn. & Co.; Hermanus Wyering, spinner, N. V. Spinnerij Roombeek; Dirk Wissink, managing director, Spinning Mills Oosterveld, Ltd. *Weavers:* Albert De Vries, superintendent of weaving mill, H. J. Menko, Ltd.; Jan Fahner, trade union official, Algemene Bond v. Kleding-en Textielarbeiders De Eendrach; Johannes Hengstman, weaver, Royal Steamweaving Mill; Gerrit Jan Niessink, weaver, H. ter Kuile & Son; Hendrik Pinkster, time and motion study expert, Blydenstein & Co.; E. A. D. B. Ten Cate, manager, weaving mill, H. Ten Cate; B. J. Ter Kuile, managing director, weaving mill, N. ter Kuile & Son; Willem Joan Ter Kuile, manager, weaving mill, A. J. Ten Hoppen & Son; P. J. Van Gils, weaver, N. V. Textielfabr.; Teunis Van Nijkerken, jacquard weaver, J. H. Meyerink & Son; Gerardus J. Wubbels, loom fixer, J. H. Meyerink & Son; Tammo Jacob Bezemer, head of cost accountancy and administration, Ir. B. W. Berenschot.

Loveless Heads S. Central A.A.T.C.C. Unit

H. P. Loveless, Jr., of Crystal Springs Bleachery, Chickamauga, Ga., was elevated to the chairmanship of the South Central Section of the American Association of Textile Chemists & Colorists at the unit's last meeting of the year held Dec. 1 in Chattanooga, Tenn. Mr. Loveless, who previously served as vice-chairman, succeeds W. G. Agnew of Dixie Mercerizing Co., Chattanooga.

E. E. Burgner, Jr., of Davenport Hosiery Mills, Chattanooga, was elevated to vice-chairman from the secretary's post. R. W. Freeze, American Aniline Products, was named secretary. Paul Anderson, Peerless Woolen Mills, Rossville, Ga., was named treasurer. Glenn R. Bellamy, Ciba Co., Inc., was retained in the post of councilor. Mr. Agnew was added to the sectional committee, replacing Dr. W. F. Luther, Dixie Mercerizing Co. Other members of the sectional committee are: H. A. Webb, General Dyestuff Corp.; R. J. Quigg, Jr., Quigg Chemical Co., Knoxville, Tenn., and J. H. O'Neill, Riegel Textile Corp., Trion, Ga.

Continuous Fiber Dyeing Unit Discussed

Possibilities of continuous application of dyestuffs and chemicals to fibers with the Williams continuous fiber processing machine were discussed at the Nov. 16 meeting of the Rhode Island Section of the American Association of Textile Chemists & Colorists in Providence, R. I., by Sumner H. Williams, Southern manager of General Dyestuff Corp. The machine, developed by General Dyestuff in collaboration with Morrison Machine Co., Paterson, N. J., is now in the Charlotte, N. C., office of General Dyestuff and may be seen by appointment there.

The machine is 40 inches wide and has a solution capacity of approximately 50 gallons, with a capacity of 250 to 3,000 pounds per hour depending on the type of fiber and treatment required. Mr. Williams said the machine brings fibers or fabric in contact with dye or treating solutions in a short liquor ratio at regulated temperatures and carries them through a dye bath or series of baths in a controlled manner by co-acting stainless mesh conveyors. Time of contact of fibers with solutions may be varied by means of controlled speeds, he added.

Dyeing and treating times at present range from ten to 90 seconds per unit. He pointed out that fibers that require long treatment with certain dyestuffs, such as application of acid and chrome colors to wool, were not suited for continuous processing and will not be until flash methods of fixation are developed to fit the process to the machine.

Advantages of the use of the new machine include its ability to process small samples and adaptability to processing any size lot of stock. As little as half a pound of stock may be processed and the sample tested and observed in a short space of time. A series of these units may be installed in line with washing conveyors to carry out continuous processing which would require a number of chemicals or dyeing treatments in sequence, he added.

The machine also has its limitations, Mr. Williams cautioned. Fibers must be fed into the machine in proper physical condition or unsatisfactory dyeing and uneven treatment results. The machine is unable to satisfactorily dye fibers or use dyestuffs which require length cycles of fixation, such as from one to two hours. Neither can it be used for certain new synthetics which are dyed under pressure at high temperatures.

'Black Specks' On Cloth Eliminated

A manufacturer of rayon fabric suddenly started to find in his inspection room that roll after roll of his finished cloth was marred with black specks on the surface and had to be rejected.

A hasty investigation of the entire manufacturing process failed to uncover any explanation of where the black specks were coming from. In fact, investigators stationed at various points along the process reported that there were no specks

THREE AREA SALES OFFICES FOR PERSONAL ATTENTION TO YOUR NEEDS

Northern Plant
BOX 560
NEW BEDFORD, MASS.

Branch Office
2601 N. BROAD ST
PHILADELPHIA, PA.

Southern Plant
BOX 59
GREENVILLE, S. C.

Schmidt
DISTRIBUTORS FOR
Gates
REG U S PAT OFF
LOOM ACCESSORIES

WAREHOUSE STOCKS IN ALL 3 AREAS

"Texhide" Lugs, Pickers, Strapping,
"Fractive Rib" Roll Covering
"Multi-Check" Straps

Texhide Strapping fabricated in our own shops to your specifications.

For further information, prices or samples, write Dept TB, nearest office.

TEXTILE LOOM EQUIPMENT SPECIALISTS
Schmidt
MANUFACTURING COMPANY
NEW BEDFORD, MASSACHUSETTS
GREENVILLE BELTING CO., GREENVILLE, S. C

You're sure
if you specify . . .

Engineered by TOWER

Tower engineers will be pleased to consult with you on the design and installation of the finest in textile equipment.

IRA L. GRIFFIN & SON
Charlotte 1, North Carolina
Southern Representative

Tower Iron Works
50 BORDEN STREET, PROVIDENCE 3, RHODE ISLAND

BIBERSTEIN, BOWLES & MEACHAM, INC.
TEXTILE ARCHITECTS & ENGINEERS
CHARLOTTE 4, N. C. • Phone 2-5111

of any variety apparent on the fabric during processing and suggested that the inspection room personnel must be seeing "black specks before their eyes."

However, since roll after roll of finished fabric continued to arrive at the inspection room, only to be rejected on account of black specks which everyone soon agreed really were there and weren't just optical mirages, the Frederick S. Bacon Laboratories of Watertown, Mass., was asked to join in the sleuthing.

In a comparatively short time, investigators from the Bacon Laboratories discovered that the high humidity requirements of the manufacturing process were resulting in the growth of a black fungus on the inside of the plant's air conditioning ducts. As this fungus growth collected, it finally would reach a point where it was "blown out" by the air conditioning system and distributed throughout the weave room.

Interestingly enough, none of the black spores inclined to settle upon the rayon until the fabric reached the end of the production line and actually was being taken off in rolls. Static electricity created during the feeding of the rayon into rolls was drawing the spore particles out of the air and depositing them on the surface of the cloth just as the finished fabric disappeared from sight into a roll.

Recommendations for thorough cleaning of the plant's air conditioning ducts and the addition of a non-injurious fungicide to the water used in the humidifiers, provided a simple, quick and permanent cure for the "black specks before the eyes" of the inspection room personnel as well as making a grateful Frederick S. Bacon Laboratories' client.

May Limit Sulfuric Acid For Finishing

The Textile Finishing (except wool) Industry Advisory Committee last month advised the National Production Authority, U. S. Department of Commerce, that it would not offer any objection to a proposed order imposing a 90 per cent limitation on the use of sulfuric acid for textile finishing.

In their first meeting with N.P.A. officials, the industry representatives agreed that some restrictions on the use of sulfuric acid might be required as a result of the world sulfur shortage, but pointed out that if textile production and demand improve a 90 per cent rate of use would be insufficient. The textile finishing industry uses less than one per cent of total U. S. production of sulfuric acid.

N.P.A. officials told the committee that the supply outlook for dyestuffs and other chemicals used in cloth finishing

Discussion groups at the Fall meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association: ***top left,*** **maintenance;** ***top right,*** **weaving;** ***center left,*** **spinning;** ***center right,*** **time study and standards;** ***lower left,*** **carding;** ***lower right,*** **quality control.**

appeared favorable. Plant expansion programs now under way should assure supplies of vat colors adequate for civilian needs and known military requirements. There is no shortage of direct colors or intermediate materials.

To obtain better information on the industry's requirements for chemicals, particularly sulfuric acid, and other materials, N.P.A.'s textile division is considering making a series of surveys. Draft copies of four forms which may be used in the surveys were distributed and discussed with the committee. The committee recommended that finishers not be required to report on the end-use of materials which they process. Members explained that materials designed for one use may be adapted to a quite different purpose after finishing so that their own estimates would never represent actual end-use. An industry member also requested that firms be allowed to report their production on a current rather than a historical basis if the surveys are made.

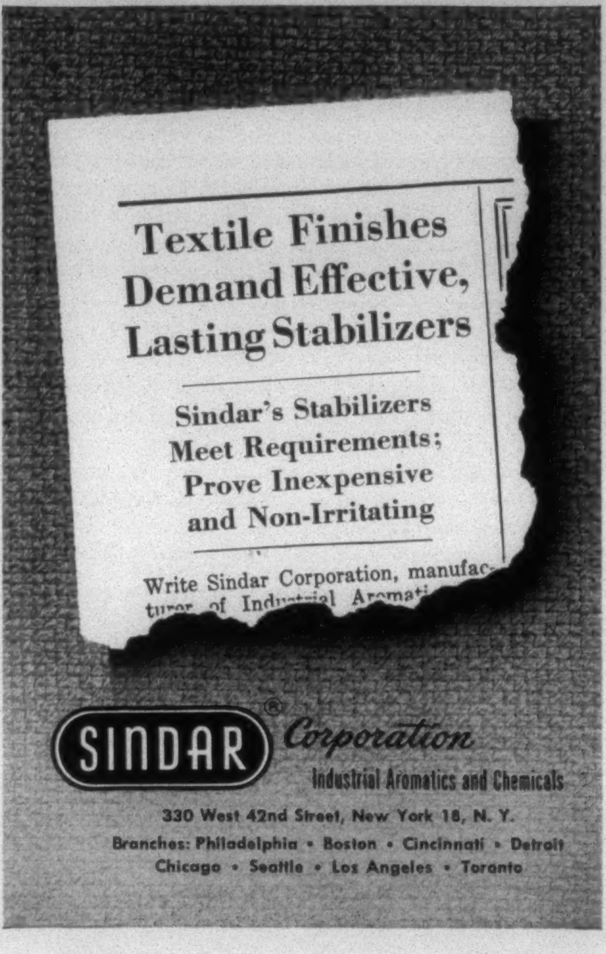
Chemical Exposition Indicates Industry's Growth

Predictions of continued expansion were abundantly confirmed by disclosures at the 23rd Exposition of Chemical Industries which crowded every square foot of exhibit space available in Grand Central Palace, New York, during the week of Nov. 26 to Dec. 1. With 457 exhibits the exposition was the largest in the 36-year history of this biennial institution. It excelled in colorful, dynamic and sharply focussed displays. It encompassed the whole field of chemical influence in the industrial world. It revealed many substances and a great deal of mechanical equipment never before publicly shown. But its most impressive audience effect was the alert attitude of exhibitors in meeting new demands upon their individual skills.

A keynote to the general movement in production planning, as reflected throughout the week was the influence of the national defense program and its reaction on civilian affairs. A significant undertone was the stimulus of the last war in the development of new materials and mechanisms, as well as substitutes for uses closed by restrictions and shortages. The search for new products and processes goes on with vigor and success, the exposition proved at a number of points, while a great deal of the secret work that went on in scientific circles during World War II, is now bearing fruit in new commercial products. This is particularly true of instrumentation to overcome human failings and manpower shortages.

Mechanical equipment for the process industries occupied the foreground of the exposition and included machinery for the preparation, combination, treatment, refining and finishing of all manner of substances from the raw material to the packaging stage. Many exhibits dealt with equipment for the classification of materials, sifting, screening, grading by size and by weight.

Instruments for research were numerous, reflecting the industry's expanding horizons. Instruments for production and process control were exhibited in increased number, revealing an interesting trend in the development of small-sized, almost miniature units in recorders, indicators and controls. In several instances these new designs represented, not simply a rescaling, but a complete redesign of a manufacturer's leading line—a tremendous task in itself. These smaller instruments are significant, because they are a part of the general development in servo mechanisms, and are more or less representative of the new science of system engineering.


Textile Finishes Demand Effective, Lasting Stabilizers

Sindar's Stabilizers Meet Requirements; Prove Inexpensive and Non-Irritating

Write Sindar Corporation, manufac-
turer of Industrial Aromati

SINDAR® *Corporation*
Industrial Aromatics and Chemicals
330 West 42nd Street, New York 18, N. Y.
Branches: Philadelphia • Boston • Cincinnati • Detroit
Chicago • Seattle • Los Angeles • Toronto

HEADQUARTERS
FOR
SIZING • PENETRANTS
SOFTENERS • ALKALIES
SHUTTLE DRESSING
"TWIST-SETTER" MACHINES

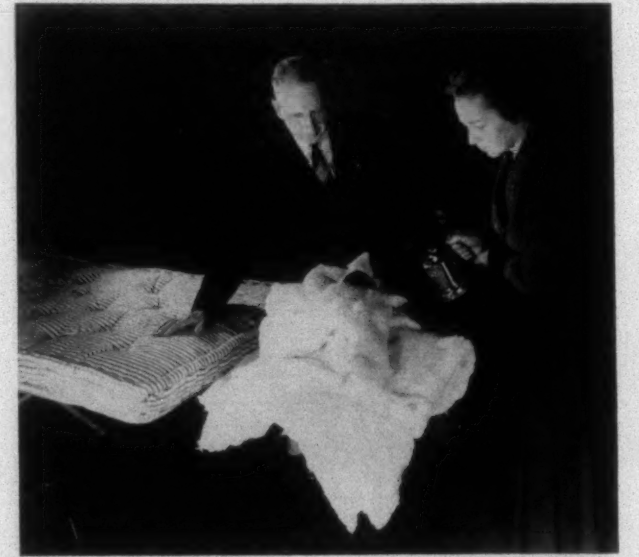
SEYDEL-WOOLLEY & CO.
TEXTILE CHEMICALS
748 RICE STREET • ATLANTA, GA.
SEYCO

J. N. PEASE & COMPANY
Industrial Engineers
119½ E. FIFTH ST. CHARLOTTE, N. C.

New Safeguard Against Death By Fire

The most serious losses of life from fire in public places have been due to inflammable textiles; tragedies which can now be prevented by treatment of textiles with the new durable fire retardants, members of the Southeastern Section, American Association of Textile Chemists and Colorists, were told by Kenneth H. Barnard of American Cyanamid's textile resin department, at the unit's Dec. 8 meeting in LaGrange, Ga. "Today, even cotton mattresses and inner-spring mattresses with cotton filling, mattress pads and upholstered furniture can be treated so they will not be inflammable.

"Education of the public is essential, however, since the public is now little aware of either the actual risk involved in the use of inflammable textiles, or the precautions now available to them in the new durable fire retardants such as Pyroset," Mr. Barnard said. "Just as people have been alerted to the dangers of heart disease and cancer and taught to take precautions against these killers, so they must be taught to take precautions against death and destruction by fire.



Mrs. Frances Bayer, executive housekeeper of New York's Henry Hudson Hotel, applies the business end of a blow torch to a pile of mattress cotton treated with new durable Pyroset fire retardant, while Kenneth H. Barnard, American Cyanamid textile technician, looks on. In this test, untreated cotton, when touched with a lighted match, immediately burst into intense flame while the treated cotton, subject to the 166° F. fire of the blow torch, was merely blackened and slightly charred and did not flame at all. The danger of hotel fires, caused by smoking in bed, a major problem to hotel owners and managers, can now be substantially reduced by application of the new finish to mattress filling, ticking, mattress pad filler and covering.

"Over 4,900 people were burned to death last year. While some of these tragedies made headlines and so resulted in state laws and city ordinances regulating fire hazards in public rooms, only one state has also prohibited the sale of fire hazardous clothing. The Armed Services, not the general public, are today's biggest users of fire retardants for such uses as combat clothing, tents and tent liners."

How Pyroset durable fire retardant should be applied by mills and finishers to various types of textiles was described in detail by Mr. Barnard. Recommended techniques and methods of application were based on experience gained over the past two years during which time the United Nations Building, many of New York's major hotels, clubs and a number of large steamships have had their hangings and draperies successfully treated with this new durable fire retardant.

S. Jack Davis, assistant to the director of the research division of Callaway Mills Co., LaGrange, was elected chairman of the Southeastern Section. Thomas H. McCamey, Pepperell Mfg. Co., Lindale, Ga., was elected vice-chairman; James Swiney, Fulton Bag & Cotton Mills, Atlanta, secretary, and W. B. Amos, Eagle and Phenix Mills, Columbus, treasurer. H. Gillespie Smith, Atlanta, Calco Chemical Co. Division, American Cyanamid Co., and C. Russell Gill, Southern Sizing Co., Atlanta, are councilors, terms unexpired.

Emphasize Need For Chemical Anti-Statics

The high electrostatic capacity of nylon and the newer synthetic fibers coming into use has increased the need for applying chemistry to the problem of electrostatics on textiles, according to a recent report from J. B. Evans, director of sales for the Dexter Chemical Corp. Ever since his company embarked on its research program in textile electrostatics, "we are being constantly deluged with such broad interest that it is at once apparent that the problem is not only of concern to fiber producers, mills and weavers, but also to garment manufacturers and ultimate consumers," Mr. Evans stated.

"Anti-static compounds are certainly not new," he added, asserting that the conventional products that have been offered for this purpose seem to fall into three main groups, under laboratory analysis. One type, he explained, seems to be based on the amines which are substantive in nature and which act to equalize the difference in potential characterizing the electrostatic condition. Another chemical group virtually acts as a ground conductor and carries the charge into the surrounding atmosphere. The third group relies upon moisture retention to leak the charge.

In laboratory tests and in actual practice, it is generally known that the amines used as anti-statics have caused some yellowing of whites and have a definite effect upon the light fastness of the colors. The chemicals which conduct the charge have no affinity for the synthetic fibers and are easily rinsed out in the first washing.

This evaluation, Mr. Evans stated, has guided his company in the search for an effective, reasonably permanent, substantive anti-static chemical and resulted in the development of a completely new compound, Dextrol Lektrostat B. The new chemical, it was claimed, has three groupings within the molecule—one which equalizes the potential difference of the charge, one which provides conductance and another group which retains a small amount of moisture. In trials made thus far, the chemical has shown no impairment of colors.

Although fiber producers are expressly interested, weavers of nylon have indicated unusual success in their initial use of the new agent. Citing a specific application at a large weaving plant, Mr. Evans said that eight to 16 pounds of Dextrol Lektrostat B to 100 gallons of size mix produced the following results in their sizing operation on nylon warp: warp ends did not cling, yarn did not stick to the drying cans, yarn quickly separated at the split box, work stoppage was reduced, loom efficiency improved, fabric was more even-appearing, and breakage, chafe marks and shiners were reduced. These results, it was confirmed, were accomplished without the need for mechanical static eliminators which have been installed in the plant.

Concerning additional uses for the new chemical anti-static agent, Mr. Evans listed a variety of possibilities based either on actual practice or present trials. In the manufacture of nylon garments, for example, he singled out the difficulties imposed by static on the fabric in the sloping, tucking, handling and sewing operations. "Curling of the edges of nylon fabric tends to slow down production and results in some waste of fabric, and we are trying to ascertain what part static electricity plays in this effect. Dust, dirt and lint attracted onto the fabric by the static condition, however, is materially reduced on anti-static treated material," Mr. Evans said.

C. Norris Rabold Again Heads A.A.T.C.C.

C. Norris Rabold of Erwin Mills, Inc., Cooleemee, N. C., was re-elected president of the American Association of Textile Chemists & Colorists in a recent mail ballot to select officers for 1952. Elected vice-presidents were Raymond W. Jacoby, New England region; Arthur W. Etchells, Central Atlantic region; Samuel L. Hayes, Southern region; Arthur T. Brainerd, Western region.

A. A. T. C. C. announces that its subcommittee on light fastness has organized a program and is at present at work on an investigation of anomalous light tests of dyes on the newer synthetic fibers. It is hoped that differences found between sunlight and Fade-Ometer light tests may be explained, and reconciled or eliminated.

Committee chairmen for the 31st national convention of the American Association of Textile Chemists & Colorists, Nov. 6-8, 1952, at Boston, Mass., are made known by George O. Linberg, Belle Chemical Co., Inc., Boston, who will be general chairman of the gathering.

Dr. Walter J. Hamburger, Fabric Research Laboratories, Inc., is assistant general chairman, and C. Wendall Lever, Goodall-Sanford, Inc., Sanford, Me., is Northern New England Section chairman.

Heads of committees have been named as follows: *exhibits,* Delbert E. Ray, Roxbury Carpet Co., Saxonville, Mass.; *technical program,* Ernest R. Kaswell, Fabric Research Laboratories, Inc.; *alumni luncheon,* J. Milton Washburn, Emery Industries, Inc., Lowell, Mass.; *national technical committee,* Prof. Rogers B. Finch, textile division, Massachusetts Institute of Technology; *registration,* John M. Gould, Barre Wool Combing Co., Ltd., South Barre, Mass.; *reception,* Edward S. Chapin, W. C. Durfee Co., Inc., Boston; *hotel,* Harry M. Hartnett, General Dyestuff Corp., Boston; *finance,* Philip S. Durfee, W. C. Durfee Co., Inc., Boston; *entertainment,* Albert E. Sampson, National Aniline Division, Allied Chemical & Dye Corp., North Quincy, Mass.; *transportation,* A. Frederick Baggessen, The Bell Co., Worcester; *personnel,* Harold C. Chapin, Lowell Textile Institute; *ladies,* Dean G. Nathan Reed, Lowell Textile Institute; *printing,* Azel W. Mack, Dexter Chemical Corp., Boston, and *publicity,* Hyman P. Selya, Sagamore Color & Chemical Co., Boston.

Cite Varied Industrial Uses Of Dynel

Nearing the end of its first year of commercial production, dynel, new textile fiber made by Union Carbide & Carbon Corp., has gained wide acceptance in a varied group of industrial end uses. The new fiber is firmly establihed in such products as filter cloth, work clothing, water softener bags, dust-fume bags, paint roller covers, hosiery dye nets and anode bags. It is in ~~late~~ development stages for use

TEXTILE ENGINEERING

COTTON
RAYON
WOOL
SILK
NYLON

Plans and designs for all types of projects related to the textile industry. Appraisals, modernization studies, machinery layouts, air-conditioning, power and water filtration plants, and other phases of textile engineering.

ROBERT AND COMPANY ASSOCIATES
Architects and Engineers
ATLANTA

MOORESVILLE IRON WORKS
P. O. Box 246 MOORESVILLE, N. C. Phone 49

CASTINGS
Grey Iron, Bronze and Aluminum

TEXTILE MACHINERY AND PARTS

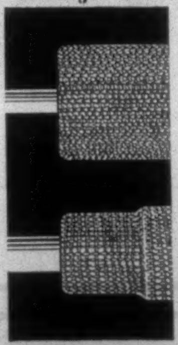
Loom Beams Our Specialty. All metal Loom Beams with adjustable or stationary heads, also all types of Beams with wood barrels. Immediate delivery on Motor Pinions, Motor Pulleys, Sheave Pulleys, cut Sprockets, Pick Wheels.

Special Machines Quoted On Upon Request

LEATHER BELTING
HAIRY CHECK STRAPS
TEXTILE LEATHERS
MADE ONLY FROM THE "HEART OF THE HIDE"
Manufactured by
JOHN BRIDGE SONS
Established 1880
9th and Pennell Sts. Chester, Pa.
Agent
Geo. A. Howell, Jr.
Rockingham, N. C. Telephone 3443

New Seamless Knit Covers For Card Scavenger Rolls
(Patent No. 2,202,813)

Try these new covers on your back or front card rolls. They last three times longer and are ten times easier to strip than ordinary paper or cloth covers. Card hands love them . . . . and they are economical too!
Convince yourself. Send one old scavenger roll to be covered. It will be covered and returned to you at no charge so you can see that we have something. You be the judge.
This is not a slip-on cover . . . . can be had only by sending in old rolls for covering or orders for new ones to your specifications. We prepay charges one way on old rolls. Also made to your order: Knit Dye Tubing any size . . . . and sheepskin or cloth clearers. Give us a trial.



Manufacturers of
STAR BRAND ★ ROLLER VARNISH
FOR 25 YEARS.
THE TEXTILE LABORATORIES
P. O. Box 1003 Gastonia, North Carolina

in airplane-trim fabric, valve and flange covers, tarpaulins, and other applications that take advantage of the features of the new material.

Dynel's combination of inherent properties contributes such features as wet and dry strength, abrasion resistance, resistance to acids and alkalis and washability. Because of these qualities, dynel products generally have a long service life, thereby effecting substantial economies in operation over fibers previously used.

In the rugged proving ground of filter fabrics, for example, dynel brings unusual life, performance and economy. Dynel filter cloths in all standard constructions, by such firms as Wellington Sears Co. and U. S. Rubber Co., have brought improvements in every installation, it is claimed. They have proved exceptionally valuable in chemical filtration, particularly where acid is present. On its performance to date, dynel seems to offer a ready solution to many difficult chemical filtration problems.

In dyestuff filtration, where hot acids are used under pressure, dynel has also delivered superior performance, previously unobtainable with ordinary filter material. At the Wilson Organic Chemicals, Inc., plant in Sayersville, N. J., which manufactures textile dyestuffs, dyestuff intermediates and pharmaceutical intermediates, dynel overcame problems which had proved insoluble with wool and cotton filter cloths. Cotton deteriorated rapidly in acid solutions, such as sulfuric acid, the most commonly used. Wool filter cloth is acid-resistant, but sags in the center and stretches in its top section, thereby opening the weave and permitting the solutions to run through without proper filtering. The adoption of dynel surmounted these difficulties, according to Morgan Jones, Wilson plant manager. The new fiber does not shrink, sag or stretch, is remarkably resistant to practically all acids, lasts far longer than other cloths. It has a fuzzy texture which acts as a mat to filter out the finer particles.

Dynel has performed notably in water softener bags manufactured by Servisoft, Inc., Rockford, Ill., to hold the chemicals in water softening installation in homes in hard water areas. In industrial uniforms and other clothing for use in chemical and petroleum plants, dynel has gained wide acceptance. The fiber's great resistance to acids and alkalis is most dramatically shown here. Other industries in which high dollar and cents savings have been made possible by dynel clothing are mining, electro-plating, storage battery manufacture, oil refineries and plants producing or handling such cehmicals as sulfuric acid.

See Municipal Bonds Financing Industry

According to Royal Little, president of Textron, Inc., in an address Nov. 19 before the New York Chapter of the National Association of Cost Accountants, an important new method of financing plant expansion is currently being developed through the co-operation of municipalities and industrial enterprises. The impact of high federal taxes on both corporated income and the equity security holder is primarily responsible for this new trend, he said.

"In the past, wealthy individuals invested their capital directly in America's productive enterprises. The wealthy individual today can no longer afford to use his capital productively because of the low net rate of return after taxes on his investment in equity securities. The wealthy now seek refuge in tax-exempt bonds, principally municipals. The ownership of America's great industries has shifted therefore from relatively few wealthy families into the hands of possibly 15,000,000 small investors with limited capital. In addition, as our country has matured, many billions of capital are sterilized in trust funds which are limited by law in their ability to invest in equities. These trusts are also large holders and buyers of tax-exempt municipals. There is therefore an enormous market for these tax-exempt securities, the proceeds from the sale of which go largely into civic improvements, many times extravagantly planned because of the ready market for tax exempts. The result is that billions of capital which used to be employed constructively in building America has been diverted into non-productive uses.

"Under the leadership of the State of Mississippi, there are today thousands of communities in the country which can legally issue tax-exempt bonds for the purpose of building industrial plants and leasing such facilities to operating companies. This new plan not only makes available again these huge reservoirs of sterilized capital for the nation's continued industrial expansion, but it offers a unique opportunity for co-operation between industrial companies and the communities in which they plan to operate.

"There will be prophets of doom who will predict that this trend will lead to wholesale default on future municipal issues. There will be those who will cry, 'Socialism!' Others will claim 'tax evasion' as the primary motive. None of these charges however stands up to factual analysis. This method of plant financing is sound from the point of view of everyone concerned—industry, community and federal government.

"Through this method of financing, industry is able to preserve its working capital position, and therefore expand sales and increase earnings on its net worth. The communities obtain retail sales velocity from these new projects equal to four and one-half times the industrial payroll involved. The federal government is the greatest gainer. Since the rent involved for the plant is approximately the same as the total depreciation on any industrial property, there is no long range tax advantage to the industrial enterprise in the leased plant proposal.

"On the other hand, by diverting tax-exempt investment away from non-productive community projects into industrial properties, the nation's corporate earnings are expanded and federal income taxes are greatly increased. Obviously, no corporation will enter into an industrial lease of this type unless the earnings on the project will be many times the rent involved in amortizing plant cost.

"Municipal industrial building bonds will in the future become one of the nation's most important sources of capital for industrial de-centralization and expansion."

Avisco Employees Illustrate Calendar

A colorful 1952 calendar, illustrated entirely with prize-winning color photographs taken by American Viscose Corp. employees, is being sent by that company to 36,000 of its employees and friends. The picture contest, announced in the January issue of *Avisco News*, the company's house magazine, netted 595 entries. Fourteen pictures were chosen, and $50 was paid for each transparency used.

New Fabric For Army Fatigue Clothing

A new type of cotton sateen cloth, developed in collaboration between the Army Quartermaster and the textile industry, will soon replace herringbone twill as the material for use in production of fatigue clothing for the Army.

Extensive tests at Quartermaster laboratories at Fort Lee, Va., and by troops in the field, revealed that the new cotton sateen fabric has better wearing qualities and greater abrasion resistance than the twill. Both materials weigh approximately 8.5 ounces per square yard.

Present plans call for production of 15,000,000 yards of the fabric into work garments over a period of several months. However, the new material is not to be issued until present supplies of herringbone twill are exhausted.

Many Problems Face Cotton Council Parley

Program planning and policy determination affecting every segment of the cotton industry will occupy a high place on the agenda of the National Cotton Council's 14th annual meeting at New Orleans, La., Jan. 28-29, Harold A. Young, council president, said recently. The record number of problems facing cotton tend to make the New Orleans sessions among the most important since the council was established, the cotton leader declared.

"During this crucial period in American history, the industry must reach solutions not only to its own problems, but also determine how it can be of greatest service to the nation," Mr. Young said. "The industry leaders attending the council meeting will be called upon to develop plans for furthering programs in the fields of production and marketing efficiency, utilization research, sales promotion, and expansion of foreign markets. They likewise will be faced with the need for combatting to the best of their abilities the spread of socialism in the United States."

During the three days prior to the meeting, council program committees will meet in New Orleans to build 1952 recommendations for action by the full delegate membership of the organization. Mr. Young said that the convention would study carefully the outlook for farm machinery, labor, fertilizer, insecticides and other supplies required for the production of the 1952 crop.

"Attention likewise will be given to cotton research accomplishments during the past year and to needs during the period ahead," the council president stated. "We are aware that for cotton to meet the threats of its competition, we must move as rapidly as possible toward greater efficiency in production and higher quality of product." Sales promotion programs for 1952 also will be mapped by the delegates. Currently the council maintains campaigns in support of cotton wearing apparel and household products, a number of industrial cottons, and cottonseed food products.

"Through promotion effort the industry has achieved numerous successes in carrying cotton's story to the public," Mr. Young said. "The council delegates will have the responsibility of strengthening and expanding our programs in promotion and public relations." Approximately 600 industry members from every section of the Cotton Belt are expected to attend the meeting. The council last met in New Orleans in 1940.

Among members of a 65-man special advisory committee named to serve during the council's 14th annual meeting were: C. A. Cannon, Kannapolis, N. C., president of Cannon Mills Co.; E. S. Chappelear, New York, vice-president, Bankers Trust Co.; Alston Clapp, Sr., Houston, Tex., Anderson, Clayton & Co.; Donald Comer, Birmingham, Ala., chairman of the executive committee, Avondale Mills; Dr. John H. Dillon, research director of Textile Research Insti-

Industrial Engineers
Specializing in Textiles for over one-third of a century

PAYROLL CONTROLS COST SYSTEMS
SPECIAL REPORTS WORK LOAD STUDIES
COST REDUCTION REPORTS

Ralph E. Loper Co.
GREENVILLE, S. C. FALL RIVER, MASS.

"M-B" BOBBIN CHOKE REMOVER

Blows ALL Fly, Lint and Litter from bobbins by air pressure; eliminates wire or brush hand method; does a cleaner job with speed, as fast as an operator can handle bobbins. Simply place bobbin in head, depress and a gust of air removes all trash in a jiffy. Model A has concaved head for bobbins of 7/8" O.D.! or smaller; Model B with convex head for larger bobbins. Attach to bench, wall, post, etc., with screws or bolts. Alloy steel body. Furnished with either 1/4" or 3/8" female N.P.T. connections.

Write for Literature.

M·B PRODUCTS
46 Victor Ave.
DETROIT 3, MICHIGAN

CARECO ONE-PIECE FURNACE LINING
Reg. U.S. TRADE MARK Pat. Off.
For REPAIRING or LINING

LONGER LASTING BOILER FURNACES

A PLASTIC LINING USED IN PLACE OF FIRE BRICK

"Boiler furnaces lined with CARECO last two to four times longer than those lined with fire brick. Write for quotation."

CAROLINA REFRACTORIES CO.
Hartsville, S. C.

WET PROCESSING AGENTS
BURK-SCHIER
FOR EVERY TEXTILE APPLICATION

BURKART-SCHIER CHEMICAL CO.
CHATTANOOGA, TENNESSEE

MANUFACTURING CHEMISTS FOR THE TEXTILE INDUSTRY

SELLING AGENTS
For Southern Cotton Goods

B. J. BARRY & COMPANY
INCORPORATED
62 WORTH STREET • NEW YORK 13, N. Y.

JOSHUA L. BAILY & CO.
Established 1876

Merchandising · Converting
Cotton Fabrics

Broad Distribution
in the Principal
American and
Foreign Markets

40 Worth Street, New York 13, N. Y.

Package Dyeing and Bleaching
ALL TYPE COLORS
ON COTTON YARNS
PIEDMONT PROCESSING CO., Belmont, N. C.
Telephone 352 and 353

tute, Princeton, N. J.; Arthur B. Edge, Jr., president, Callaway Mills Co., LaGrange, Ga.; Russell C. Gregg, Memphis, Tenn., manager, Anderson, Clayton & Co.; M. Earl Heard, Shawmut, Ala., director of research, West Point Mfg. Co.; Percy S. Howe, Jr., New York, president, American Thread Co.; Robert C. Jackson, Washington, vice-president, American Cotton Manufacturers Institute; John C. Lee, New York, president, New York Cotton Exchange; Ellison S. McKissick, Easley, S. C., president and treasurer, Alice Mfg. Co.; Harvey W. Moore, Concord, N. C., president and treasurer, Brown Mfg. Co.; and J. M. Reeves, New York, president, Reeves Bros., Inc.

Charged with the responsibility of developing the council's industry-wide program for next year, the following cotton textile executives were appointed to serve on four major program committees by President Young: *sales promotion*—J. M. Reeves of New York City, Marshall C. Stone of Pacolet, S. C., and J. Craig Smith of Sylacauga, Ala.; *utilization research*—Norman E. Elsas of Atlanta, Ga., M. Earl Heard of Shawmut, Ala., Charles C. Hertwig of Macon, Ga., and Walter Regnery of Joanna, S. C.; *foreign trade*—C. A. Cannon of Kannapolis, N. C., Shannon M. Gamble of Chattanooga, Tenn., Ellison S. McKissick of Easley, S. C.; *production and marketing*—A. B. Emmert of Danville, Va., and A. K. Winget of Albemarle, N. C.

Final 1951 Cotton Crop Estimate Given

The Agriculture Department, in its final report of the year, estimated this year's cotton crop at 15,290,000 bales of 500 pounds gross weight. This estimate is 481,000 bales less than the 15,771,000-bale crop forecast a month ago. It is much larger, however, than last year's very small crop of 10,012,000 bales, and considerably larger than the ten-year (1940-49) average of 12,030,000 bales.

The department has called for another big crop next year —again at least 16,000,000 bales—to meet heavy demands under the preparedness program and to supply customers abroad.

The Census Bureau Nov. 23 reported cotton consumption for the period of Sept. 30 to Nov. 3 averaged 36,568 bales for each working day. This compared with an average of 42,369 bales for the corresponding period a year ago, and with 37,026 for the September period this year.

The daily average consumption of linters was 4,731 bales compared with 4,798 a year ago and 4,245 for the September period this year. Consumption of cotton in the October period was 905,062 bales compared with 722,004 in the September period and 836,788 a year ago.

The cotton spinning industry operated during October at 124.1 per cent of capacity on a two-shift, 80-hour week basis. This compared with 127.8 per cent during September this year, and 146.9 per cent during October last year.

Spinning spindles in place Nov. 3 totaled 23,182,000, of

J. P. STEVENS & CO., Inc.
fabrics for diversified uses
1410 BROADWAY
44 LEONARD STREET
EMPIRE STATE BUILDING
NEW YORK

which 20,394,000 were active consuming cotton on the last working day of the month, compared with 23,188,000 and 20,714,000 for September this year, and 23,082,000 and 20,758,000 for October a year ago.

A.S.A. Committee Approves Rayon Standards

The consumer goods committee of the American Standards Association recommended approval of the proposed American Standards for Rayon Fabrics at a meeting Nov. 27, at A.S.A. headquarters in New York. These standards will now be submitted to A.S.A.'s standards council for final disposition. The council is the ultimate authority on approval of all standards before they can become American standards.

In submitting these 51 specifications—including 31 test methods—for the end use of rayon fabrics to the council, the C.G.C. recommended approval with the proviso that the standards "shall be opened to revision within two years from the date of their publication."

They also provided that "since the history of the development of the rayon project indicates that there is great need for a consistent set of American standards for the testing of rayon fabrics, it is recommended that the sponsors for the project on textile test methods (A.S.A. project L14) proceed as rapidly as possible with the requested examination of those test methods which are included by reference in the proposed rayon specifications, with the aim of either approving these methods as American standards or of providing alternative test methods."

They also requested that "as additional American standard methods for testing rayon fabrics become available the sectional committee for the rayon project consider the revision of those rayon specifications to which such test methods may apply."

The National Retail Dry Goods Association is sponsor for the rayon project, on which work began in 1949. It completed its work and turned the standards over to the American Standrads Association early last month. They were then submitted to A.S.A.'s consumer goods committee for its recommendation. The consumer goods committee is made up of appointees from 30 national organizations, including groups representing government, consumers, service industries (laundries and dry cleaners), producers (weavers, finishers, and processors) and retailers.

The 180-page Proposed Standards contain 31 test methods and over 51 end-uses of rayon and rayon-mixed fabrics. Rayon is defined as any fabric which has 50 per cent or more of fibers made by viscose, acetate or cupra ammonium processes. Observance and use of the standards by producers, retailers, and consumers would be voluntary.

J. W. Valentine Co., Inc.
Selling Agents
40 Worth St. New York City
+ + +
Southern Representative
T. HOLT HAYWOOD
Wachovia Bank & Trust Co. Bldg. Winston-Salem, N. C

a great textile selling organization
Nation-wide
A GATEWAY Product
Our Trademark
World-wide
ISELIN-JEFFERSON
CO., INC.
90 WORTH STREET • NEW YORK
Atlanta • Boston • Chicago • Charlotte • Cleveland • Baltimore • Dallas • Los Angeles • New Orleans
New York • Philadelphia • San Francisco • St. Louis • Toronto (Bernard Radley & Co.)

J. E. SIRRINE CO.
GREENVILLE • SOUTH CAROLINA
Engineers
ESTABLISHED 1902
TEXTILE MILLS • RAYON PLANTS • KNITTING MILLS • DYE HOUSES
BLEACHERIES • STEAM UTILIZATION • STEAM POWER PLANTS
WATER • WASTE DISPOSAL • APPRAISALS • PLANS • REPORTS

BRADLEY FLYER & REPAIR CO.
20 years experience repairing
Flyers, Cap Bars, Twister Racks
RAYFIELD-STEWART, INC.
Textile Spindle Repair Specialists
Plant and Office
1314 West Second Ave. Phone 5-1692 Gastonia, N. C.

SOUTHERN SOURCES OF SUPPLY for Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

ALDRICH MACHINE WORKS, Greenwood, S. C. Carolina Reprs.: W. D. Wornall and B. Gales McClintock, Box 1524, Charlotte 1, N. C.; Georgia and Alabama Repr.: Ben R. Morris, Box 221, Brookhaven, Ga.; Repr. for Air Conditioning and Humidifying Equipment: J. E. Brown, Box 1318, Atlanta 1, Ga.

ALLEN BEAM CO., 156 River Rd., New Bedford, Mass. Sou. Repr.: Joseph Bowler, Jr., 107 McGee St., Tel. 3-3289, Greenville, S. C.

AMERCOAT CORP., 4809 Firestone Blvd., South Gate, Calif. Carolinas Repr.: Southern Specialties Co., 202 Coddington Bldg., Charlotte 2, N. C.

AMERICAN ANILINE PRODUCTS, INC., 50 Union Square, New York 3, N. Y.: Works at Lock Haven, Pa.; Sou. Warehouse and Laboratory: 1500 Hutchison Ave., Charlotte, N. C.; Warehouse and Laboratory, 4001 Rossville Blvd., Chattanooga, Tenn. Sou. Reprs.: J. H. Orr, Mgr., Charlotte, N. C.; George R. Howard, Charlotte, N. C.; C. F. Martin, Jr., Charlotte, N. C.; Gayle Rogers, Charlotte, N. C.; W. D. Livingston, Greensboro, N. C.; Marion West, Jr., High Point, N. C.; J. T. Bohannon, Jr., Newnan, Ga.; C. O. Starnes, Rome, Ga.; J. T. Bohannon, Jr., and R. W. Freeze, Chattanooga, Tenn.

AMERICAN CYANAMID CO., Industrial Chemicals Div., 30 Rockefeller Plaza, New York City. Sou. Office, Manufacturing Plant and Warehouse, 333 Wilkinson Blvd., Charlotte, N. C. Hugh Puckett, Sou. Dist. Mgr. Reprs.: John D. Hunter, R. S. Meade, Q. M. Rhodes, W. C. Comer, Jr., Charlotte Office; Eugene J. Adams, P. O. Box 3228, South Highland Station, Birmingham, Ala.; Jack B. Button, 1409 Garland Drive, Greensboro, N. C.; C. B. Suttle, Jr., P. O. Box 4817, Atlanta, Ga.; A. R. Skelton, Jr., American Cyanamid Co., Mobile, Ala.

AMERICAN MOISTENING CO., Providence, R. I. Sou. Plants, Charlotte, N. C. and Atlanta, Ga.

AMERICAN VISCOSE CORP., 350 Fifth Ave., New York City. Sou. Office, 221 S. Church St., Charlotte, N. C., Henry K. Kelly, Mgr.

ANHEUSER-BUSCH, INC., St. Louis, Mo. S. E. Sales Mgr. Corn Products Dept.; Charles H. Conner, Jr., 607 Johnston Bldg., Charlotte 2, N. C.

ARMSTRONG CORK CO., 33 Norwood Place, Greenville, S. C. J. V. Ashley, Dist. Mgr., Tel. Greenville 3-5302.

ASHWORTH BROS., INC., Fall River, Mass. Sou. Sales and Service Office and Repair Shop, 1201 S. Graham St., Charlotte, N. C., J. M. Reed, Sou. Mgr., T. F. Hart, Sales; Mfg. Plant, Sales Office and Repair Shop, Laurens Rd., Greenville, S. C., A. E. Johnson, Jr., Mgr.; Sales Office and Repair Shop, 357 Forrest Ave., N.E., Atlanta, Ga., J. E. Seacord, Jr., Mgr.; Texas Repr.: Textile Supply Co., Dallas, Tex.

ATKINSON, HASERICK & CO., 211 Congress St., Boston, Mass. Sou. Office and Warehouse, 1639 W. Morehead St., Charlotte, N. C., Tel. 5-1640. Sou. Agt., F. E. Bozeman.

ATWOOD DIVISION, Universal Winding Co., P. O. Box 1605, Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C.; Agent, Frederick Sails; Atlanta Office, 903 Whitehead Bldg., Agent, J. W. Stribling.

BAHAN TEXTILE MACHINERY CO., Greenville, S. C.

BAHNSON CO., THE, 1001 Marshall St., Winston-Salem, N. C.; 886 Drewery St., Atlanta, Ga.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C., J. H. Spencer, Mgr.

BARKLEY MACHINE WORKS, Gastonia, N. C.

BARRELED SUNLIGHT PAINT CO., Providence, R. I. C. L. Park, Sou. Dist. Mgr., P. O. Box 184, Tucker, Ga.; Thomas C. Roggenkamp, 435 Wakefield Dr., Charlotte, N. C.; L. K. Palmer, P. O. Box 1123, Spartanburg, S. C.; Alfred G. Malone, P. O. Box 3763, Orlando, Fla.; P. R. Singletary, 3384 Mathieson Rd., N.E., Atlanta, Ga.; Edward J. O'Brien, Jr., P. O. Box 675, Silver Spring, Md.

BEST & CO., EDWARD H., 222-224 Purchase St., Boston, Mass. Sou. Repr.: W. C. Hames, 185 Pinecrest Ave., Decatur, Ga., Phone Dearborn 5974; William J. Moore, P. O. Box 1970, Greenville, S. C., Phone Greenville 5-4820.

BIBERSTEIN, BOWLES & MEACHAM, INC., Charlotte 4, N. C.

BOOTH CO., BENJAMIN, Allegheny Ave. and Janney Sts., Philadelphia 34, Pa. Carolinas Sales Agt.: Oliver D. Landis, Inc., 718 Queens Road, Charlotte 7, N. C.; Ga. and Ala. Sales Agt.: Chas. T. Stover Co., Atlanta, Ga.

BORNE SCRYMSER CO., Works and Offices, 632 S. Front St., Elizabeth, N. J. Warehouse, 815 W. Morehead St., Charlotte, N. C. Sou. Mgr.: Willard E. Smith, Charlotte, N. C.; Reprs.: Chas. G. Kelley and N. L. Killebrew, Charlotte, N. C.; John Ferguson, LaGrange, Ga.; D. C. Waynick, Greensboro, N. C. Textile Specialty Co., Greensboro, N. C.

BRADLEY FLYER & REPAIR CO., 1314 W. Second Ave., Gastonia, N. C.

BRIDGE SONS, JOHN, 9th and Pennell Sts., Chester, Pa. Sou. Repr.: George A. Howell, Jr., Rockingham, N. C.

BRYANT ELECTRIC REPAIR CO., 607-9 E. Franklin Ave., Gastonia, N. C.

BRYANT SUPPLY CO., INC., 605 E. Franklin Ave., Gastonia, N. C.

BULLARD CLARK CO., THE, Charlotte, N. C., and Danielson, Conn. E. H. Jacobs Southern Division Plant, Warehouse and Office, Box 3096 South Blvd., Charlotte, N. C. Sou. Exec., Edward Jacobs Bullard, Pres., and C. W. Cain, V.-Pres. and Gen. Mgr., both of Charlotte, N. C. Sou. Service Engineers: S. B. Henderson, Box 133, Greer, S. C.; L. L. Froneberger, Jr., 523 Woodland Dr., Greensboro, N. C.; Ralph M. Briggs, Jr., 399 Lofton Rd., N.W., Atlanta, Ga.; Frank W. Beaver, Concord, N. C.; Bill Heacock, 315 Popular St., Sylacauga, Ala.; L. J. McCall, 536 E. Faris Rd., Greenville, S. C.

BURKART-SCHIER CHEMICAL CO., Chattanooga, Tenn. Plants: Chattanooga-Knoxville-Nashville. Sales and Service: C. A. Schier, A. S. Burkart, W. A. Bentel, W. J. Kelly, Jr., George S. McCarty, A. J. Kelly, J. A. Burkart, D. H. Gunther, T. A. Martin, E. F. Jurczak, Lawrence Newman, C. V. Day, care Burkart-Schier Chemical Co., Chattanooga, Tenn.; H. V. Wells, John T. Pigg, J. T. Hill, G. L. Vivrett, care Burkart-Schier Chemical Co., Nashville, Tenn.; Phil H. Swann, George Garner, L. W. Maddux, care Burkart-Schier Chemical Co., Knoxville, Tenn.; James A. Brittain, 3526 Cliff Road, Birmingham, Ala.; O. G. Edwards, P. O. Box 1181, Tryon, N. C.

CALGON, INC., 323 Fourth Ave., Pittsburgh, Pa. Sou. Offices: J. W. Eshelman & Co., Inc., 2625 Sixth Ave., South, Birmingham 5, Ala.; J. W. Eshelman & Co., Inc., 314 Wilder Bldg., Charlotte 2, N. C.

CARBOMATIC CORP., 24-81 47th St., Long Island City 3, N. Y. Sou. Branch: Textile Specialty Co., Greensboro, N. C.

CAROLINA LOOM REED CO., 1000 S. Elm St., Greensboro, N. C.

CAROLINA MACHINERY CO., INC., Morris Field, Charlotte, N. C. John McLaughlin, Mgr.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CARTER TRAVELER CO., Gastonia, N. C., Division of A. B. Carter, Inc., Gastonia, N. C. Sou. Repr.: R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex.

CHARLOTTE LEATHER BELTING CO., Charlotte, N. C. Mgr., J. L. Harkey; Sales Reprs.; P. L. Pindell, Charlotte, N. C.; R. L. Swift, No. 3 Sherwood Court Apts., Ridgeland Ave., Greenville, S. C.

CHAPMAN ELECTRIC NEUTRALIZER CO., Portland 6, Maine. Sou. Repr.: William J. Moore, Greenville, S. C.

CHARLOTTE CHEMICAL LABORATORIES, INC., Charlotte, N. C. Peter S. Gilchrist, Jr.

CIBA CO., INC., Greenwich and Morton Sts., New York City. Sou. Offices and Warehouse, Charlotte, N. C.

CLINTON FOODS INC. (Corn Processing Div.), Clinton, Iowa. R. C. Rau, Gen. Sales Mgr., Southeastern Div., Clinton Foods Inc., 161 Spring St. Bldg., Room 317, Atlanta 3, Ga., Tel. Walnut 8998; John C. Alderson, Asst. Mgr., Atlanta Office; Boyce L. Estes, Atlanta Office; Grady Gilbert, Box 342, Phone 3192, Concord, N. C.; J. Frank Rogers and E. F. Patterson, 900 Woodside Bldg., Greenville, S. C., Phone 2-8022. Stocks carried at Carolina Transfer & Storage Co., Charlotte, N. C.; Forrest Abbott Co., 117 E. Court St., Greenville, S. C.; Atlanta Service Warehouse, Atlanta, Ga.; Industrial Chemicals, Roanoke Rapids, N. C.

COCKER MACHINE & FOUNDRY CO., Gastonia, N. C.

COLE MFG. CO., R. D., Newnan, Ga.

COMMERCIAL FACTORS CORP., 2 Park Ave., New York, N. Y.

CORN PRODUCTS SALES CO., 17 Battery Place, New York City. Corn Products Sales So., Southeastern Bldg., Greensboro, N. C., W. Rouse Joyner, Mgr.; Corn Products Sales Co., Woodside Bldg., Greenville, S. C., J. Alden Simpson, Mgr.; Corn Products Sales Co., Hurt Bldg., Atlanta, Ga.; W. H. Adcock, Mgr.; Corn Products Sales Co., Dermon Bldg., Memphis, Tenn., F. C. Hassman, Mgr.

CROMPTON & KNOWLES LOOM WORKS, Worcester, Mass. Sou. Offices and Plant; 1505 Hutchison Ave., Charlotte, N. C. John C. Irvin, Sou. Mgr.

CURTIS & MARBLE MACHINE CO., Cambridge St., Worcester, Mass. Sou. Reprs.: Greenville, S. C., 1000 Woodside Bldg., W. F. Woodward, Tel. 2-7131; Dallas, Tex., O. T. Daniels, care Textile Supply Co.

CUTLER-HAMMER, INC., 315 N. 12th St., Milwaukee 1, Wis. Sou. Offices: 714 Spring St., N.W., Atlanta, Ga., G. E. Hunt, Mgr.; 2014 Stratford Ave., Charlotte 5, N. C., F. A. Miller, Jr.; 1331 Dragon St., Dallas 2, Tex., E. K Anderson, Mgr.; 2415 San Jacinto St., Houston 4, Tex., P. G. Green, Mgr.; 508 N. Main St., Midland, Tex., T. D. Sevar; 833 Howard Ave., New Orleans 12, La., P. C. Hutchinson, Mgr.; 625 Park Lake Ave., Orlando, Fla., W. T. Roundy.

DANIELS, INC., C. R., 4900 Wetheredsville Rd., Baltimore 16, Md. Sou. Office, C. R. Daniels, Inc., 121 E. Third St., Charlotte, N. C.

DARY RING TRAVELER CO., Taunton, Mass. Sou. Reprs.: John E. Humphries, P. O. Box 834, Greenville, S. C.; John H. O'Neill, P. O. Box 720, Atlanta, Ga.; James H. Carver, Box 22, Rutherfordton, N. C.; Crawford Rhymer, Box 2261, Greenville, S. C.

DAVIS MFG. CO., INC., FRANK, 1139 Maine St., Pawtucket, R. I. Sou. Reprs.: John P. Batson, P. O. Box 841, Greenville, S. C.; R. E. L. Holt, Jr., P. O. Box 1474, Greensboro, N. C.

DAYTON RUBBER CO., THE, Dayton 1, Ohio. Textile Accessory Reprs.: J. O. Cole, P. O. Box 846, Greenville, S. C.; William L. Morgan, P. O. Box 846, Greenville, S. C.; Thomas W. Meighan, 1364 Middlesex Ave., N.E., Atlanta, Ga.; T. A. Sizemore, 526 Grove St., Salisbury, N. C.; E. L. Howell, P. O. Box 846, Greenville, S. C.; Kenneth K. Karns, P. O. Box 846, Greenville, S. C. V-Belt Reprs.: R. A. Throneberg, 2509 McClintock Rd., Charlotte, N. C.; J. M. Hubbard, Dist. Mgr., The Dayton Rubber Co., 1055 Spring St., N.W., Atlanta, Ga.; F. G. Tanner, 1549 Marianna St., Memphis, Tenn.; D. C. Greer, The Dayton Rubber Co., 1631-H Valley Ave., Birmingham, Ala.; K. C. Sparks, 1055 Spring St., N.W., Atlanta, Ga.; Jesse H. Jones, 315 Sapelo Rd., Jacksonville, Fla. Textile Jobbers: Greenville Textile Supply Co., Greenville, S. C.; Odell Mill Supply Co., Greensboro, N. C.; Young & Vann Supply Co., Birmingham, Ala.; Industrial Supply, Inc., LaGrange, Ga. Dist. Office: 2813 Canton St., Dallas, Tex.

DILLARD PAPER CO., Greensboro, Wilmington, Charlotte, N. C.; Greenville, Columbia, S. C.; Roanoke, Va.; Bristol, Va.-Tenn.; Knoxville, Tenn.; Macon, Augusta, Ga.

DIXIE LEATHER CORP., Albany, Ga. Direct Factory Reprs.: Ed Pickett, Jr., 124 Broadway, Birmingham, Ala.; D. N. Patterson, P. O. Box 176, Greenville, S. C.; W. F. McAnulty, 1240 Romany Rd., Charlotte 3, N. C.; C. E. Dietzel, 4054 Given St., Memphis 17, Tenn.; H. L. Cook, 3330 Elm St., Dallas, Tex.; D. I. McCready, P. O. Box 7701, Pittsburgh, Pa. Factory Branches, 3330 Elm St., Dallas, Tex. and Preston & Filbert Sts., Philadelphia, Pa., R. W. Davis, Mgr. Warehouses at Batty Machinery Co., Rome, Ga.; Pye-Barker Supply Co., Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; McGowin-Lyons Hardware Co., Mobile, Ala.; Ross Wadick Supply Co., New Orleans, La.; Peerless Supply Co., Shreveport, La.; Weaks Supply Co., Monroe, La.; Textile Mill Supply Co., Charlotte, N. C.; Hugh Black, Greenville, S. C.; Cameron & Barkley Co., Savannah, Ga., Tampa, Fla., Jacksonville, Fla., Miami, Fla., and Charleston, S. C.; Keith Simmons Co., Nashville, Tenn.; Lewis Supply Co., Memphis, Tenn.; Industrial Supplies, Inc., Jackson, Miss.; Taylor Parker Co., Inc., Norfolk, Va.; Industrial Supply, Richmond, Va.; Barker Jennings Hardware Corp., Lynchburg, Va.; Noland Co., Roanoke, Va.

DIXIE TEXTILE MACHINE CO., P. O. Box 875, Greensboro, N. C. W. J. "Bill" Barnes, 2332 Cornwallis Dr., Greensboro, N. C., Tel. 4-5689. S. C. and Western N. C. Repr.: C. E. Oliver.

DIXON LUBRICATING SADDLE CO., Bristol, R. I. Sou. Reprs.: R. E. L. Holt, Jr., and Associates, P. O. Box 1474, Greensboro, N. C.; J. W. Davis, Manufacturer's Agent, P. O. Box 745, Columbus, Ga.

DOLGE CO., THE C. B., Westport, Conn. Sou. Reprs.: L. G. Strickland, R. F. D. 4, Durham, N. C.; George E. Bush, 2404 Belvedere Ave., Charlotte 2, N. C. New England: John H. Barlow, 43 Potters Ave., Providence, R. I.

DRAPER CORP., Hopedale, Mass. Rhode Island Warp Stop Equipment Branch, Pawtucket, R. I. Sou. Office and Warehouses, Spartanburg, S. C., W. M. Mitchell and Donald Marshall, Atlanta, Ga., 242 Forsyth St., S.W., A. Wilton Kilgore.

DRONSFIELD BROS., Oldham, England; Boston, Mass.

DU PONT DE NEMOURS & CO., INC., E. I., Organic Chemicals Dept., Main Office, Wilmington, Del. Sou. District Office: 427 W. Fourth St., Charlotte 2, N. C. R. D. Sloan, Mgr.; J. D. Sandridge, Asst. Mgr.; J. V. Killheiffer, Laboratory Mgr.; W. I. Pickens, Sales Correspondent. Salesmen: L. N. Brown, H. B. Constable, H. H. Field, M. D. Haney, Jr. Technical Demonstrators: J. J. Barnhardt, Jr., Dr. I. F. Chambers, J. T. Hasty, Jr., W. R. Ivey, G. R. Turner, H. F. Rhoads, F. B. Woodworth, N. R. Vieira. The address for all of the above gentlemen is: E. I. du Pont de Nemours & Co., Inc., P. O. Box 1909, Charlotte, N. C. Salesmen: T. R. Johnson, P. O. Box 876, Greenville, S. C.; J. A. Kidd, 1014 Rotary Drive, High Point, N. C.; J. T. McGregor, Jr., P. O. Box 1080, Greensboro, N. C. Atlanta Office: 1206 Spring St., N.E., Phone Hemlock 1904, A. B. Owens, Mgr. Reprs.: W. F. Crayton, Adam Fisher, Jr., J. H. Stradley, P. L. Cowart, J. E. Dempsey, A. C. Sutherland, Jr., A. V. Kerr ,J. W. Billingsley, A. R. Williams, Jr., M. S. Williams, Jr., L. A. Burroughs. Chattanooga, Tenn., C. H. Asbury; Knoxville, Tenn., M. S. Morrison, Jr.; Columbus, Ga., A. W. Pickens; Memphis, Tenn.; J. A. Verhage.

EATON & BELL, 904 Johnston Bldg., Charlotte, N. C.; 753 Munsey Bldg., Washington, D. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou. Plant, 2437 Lucena St., Charlotte, N. C., George A. Field, Mgr.; Arthur W. Harris, Harris Mfg. Co., 443 Stonewall St., S.W., Atlanta, Ga.; W. H. Gibson, 1743 McKinley Ave., San Antonio, Tex.; R. F. "Dick" Coe, P. O. Box 221, Greensboro, N. C.; Ralph Gossett & Co., Greenville, S. C.

ENGINEERING SALES CO., 123-125 W. 29th St., Charlotte, N. C., and Allen Bldg., Greenville, S. C.; S. R. and V. G. Brookshire.

EXCEL TEXTILE SUPPLY CO., Lincolnton, N. C.

FAIRBANKS CO., THE, 393 Lafayette St., New York 3, N. Y. Factory and District Office: 202 Division St., Rome, Ga. Sou. Reprs.: A. A. Austin, 105 Briercliff Circle, N.E., Atlanta, Ga.; M. A. Chalverus, 815 So. Lee St., Fitzgerald, Ga.; H. M. Sims, P. O. Box 6031, Charlotte, N. C.; H. M. Summerell, 1808 Beverly Dr., Charlotte, N. C. Distributors in all principal cities.

FELTERS CO., THE, Unisorb Div., 210-G South St., Boston 11, Mass. Sou. Distributors: Industrial Supply Co., W. Main St., Clinton, S. C. Tel. 111, Teletype Clinton TLX 90.

FERGUSON GEAR CO., Gastonia, N. C.

FOSTER MACHINE CO., Westfield, Mass. Sou. Offices, 509 Johnston Bldg., Charlotte, N. C.

GASTON COUNTY DYEING MACHINE CO., Stanley, N. C.

GASTONIA BRUSH CO., Gastonia, N. C.

GASTONIA MILL SUPPLY CO., Gastonia, N. C.

GASTONIA ROLLER, FLYER & SPINDLE CO., Linwood Ave. and Second St., Gastonia, N. C. Phone 1209.

GASTONIA TEXTILE MACHINERY CO., INC., P. O. Box 351, Gastonia, N. C. Sou. Reprs.: K. G. Lytton, 1801 Hedgewood Place, Charlotte N. C.; George Ratchford, Gastonia, N. C.

GASTONIA TEXTILE SHEET METAL WORKS, INC., Gastonia, N. C.

GENERAL COAL CO., 1215 Johnston Bldg., Charlotte 1, N. C. D. B. Smith, Sou. Sales Mgr.; F. B. Crusan, Asst. Sou. Sales Mgr. Reprs.: H. G. Thompson, Asheville, N. C.; Hugh D. Brower, Atlanta, Ga.; Frank B. Ripple, Raleigh, N. C.; B. W. Glover, Jr., Greenville, S. C.; W. A. Counts, Res. Mgr., Bluefield, W. Va.; G. E. Tate, Richmond, Va.; J. A. Basinger, Jr., Charlotte, N. C.; B. C. Bell, Jr., Service Repr., Charlotte, N. C.

GENERAL DYESTUFF CORP., 435 Hudson St., New York City. Sou. Office and Warehouse, 2459 Wilkinson Blvd., Charlotte, N. C., S. H. Williams, Mgr.

GOSSETT MACHINE WORKS, W. Franklin Ave., Gastonia, N. C.

GRATON & KNIGHT CO., 328 Franklin St., Worcester 4, Mass. Direct Factory Reprs.: Ed Pickett, Jr., 124 Broadway, Birmingham, Ala.; D. N. Patterson, P. O. Box 176, Greenville, S. C.; W. F. McAnulty, 1240 Romany Rd., Charlotte 3, N. C.; C. E. Dietzel, 4054 Givens St., Memphis 17, Tenn.; H. L. Cook, 3330 Elm St., Dallas, Tex.; D. I. McCready, P. O. Box 7701, Pittsburgh 15, Pa. Factory Branches, 3330 Elm St., Dallas, Tex., and Preston and Filbert Sts., Philadelphia, Pa., R. W. Davis, Mgr. Warehouse stocks at: Batty Machinery Co., Rome, Ga.; Pye-Barker Supply Co., Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; McGowin-Lyons Hardware Co., Mobile, Ala.; Ross Wadick Supply Co., New Orleans, La.; Peerless Supply Co., Shreveport, La.; Weaks Supply Co., Monroe, La.; Textile Supply Co., Charlotte, N. C.; Hugh Black, Greenville, S. C.; Cameron & Barkley Co., Savannah, Ga., Tampa, Fla., Jacksonville, Fla., Miami, Fla., and Charleston, S. C.; Keith Simmons Co., Nashville, Tenn.; Lewis Supply Co., Memphis, Tenn.; Industrial Supplies, Inc., Jackson, Miss.; Taylor Parker Co., Inc., Norfolk, Va.; Industrial Supply, Richmond, Va.; Barker Jennings Hardware Corp., Lynchburg, Va.; Noland Co., Roanoke, Va.

GREENSBORO LOOM REED CO., INC., Greensboro, N. C., George A. McFetters, Pres., Phone 5678. Reprs.: J. H. Aydelette, Phone 8234, Greensboro, N. C., and James R. Smith, Phone 3-2074, Greensboro, N. C.

GREENVILLE BELTING CO., Greenville, S. C.

GULF OIL CORP. OF PA., Pittsburgh, Pa. Div. Office, Atlanta, Ga. Reprs.: S. E. Owen, Jr., and C.T. Timmons, Greenville, S. C.; R. G. Burkhalter, Charlotte, N. C.; A. J. Borders, Hickory, N. C.; G. P. King, Jr., Augusta, Ga.; G. W. Burkhalter, Greensboro, N. C.; R. D. Reamer, Hendersonville, N .C.; R. L. Winchell, Raleigh, N. C.; W. A. Dotterer, Florence, S. C.; E. T. Hughes, Columbia, S. C.; C. E. Reese and R. G. Peeples, Atlanta, Ga.; R. M. Thilbadeau, Macon, Ga. Div. Offices, Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Toledo, Ohio.

H & B AMERICAN MACHINE CO., Pawtucket, R. I., Sou. Offices: Atlanta, Ga., 815 Citizens and Southern National Bank Bldg., J. C. Martin, Mgr.; Charlotte, N. C., 523 W. Fourth St., Wm. B. Martin, Sou. Sales Mgr.; Greenville, S. C., 1510 Woodside Bldg., W. S. Johnstone, Sales Repr.

HART PRODUCTS CORP., 1440 Broadway, New York 18, N.Y.

HENLEY PAPER CO. (formerly Parker Paper Co.), Headquarters and Main Warehouse, High Point, N. C.; Warehouse and Sales Divisions: Charlotte, N. C., Asheville, N. C., Gastonia, N. C., Atlanta, Ga.

HERSEY, HENRY H., 44 Norwood Place, Greenville, S. C. Selling Agent for A. C. Lawrence Leather Co. and New England Bobbin & Shuttle Co.

HOUGHTON & CO., E. F., 303 Lehigh Ave., Philadelphia 33, Pa. W. H. Brinkley, Gen. Sales Mgr., Sou. Div. 825 W. Morehead St., Charlotte, N. C., Tel. 3-2916. Sou. Reprs.: L. L. Brooks, 506 Cedar Rock St., Pickens, S. C., Tel. 3041; J. W. Byrnes, 701 N. Jacinto St., Houston 2, Tex., Tel. Preston 7151; G. J. Reese, 546 McCallie Ave., Chattanooga, Tenn.; C. L. Elgert, 10 E. Lexington St., Baltimore 2, Md., Tel. Saratoga 2388; T. E. Hansen, Rt. No. 2, Box 157, Glen Allen, Va., Tel. 5-1620; J. J. Reilly, 2788 Peachtree Rd., N.E., Apt. 6-B, Atlanta, Ga., Tel. Cherokee 7660; F. P. Hunt, Secretarial Exchange, 902-904 Dermon Bldg., Memphis, Tenn., Tel. 37-9626; A. N. Jackson, 825 W. Morehead St., Charlotte, N. C., Tel. 3-2916; S. P. Schwoyer, P. O. Box 1507 or 302½ Otteray Drive, High Point, N. C., Tel. 3654; J. C. Mahaffey, Warp Size Specialist, 825 W. Morehead St., Charlotte, N. C.; J. D. Brown, 825 W. Morehead St., Charlotte, N. C.

HOUGHTON TOP CO., 253 Summer St., Boston, Mass. Sou. Reprs.: James E. Taylor & Co., Liberty Life Bldg., Charlotte, N. C. Telephone: 3-3692; Long Distance 936.

HOWARD BROS. MFG. CO., 44-46 Vine St., Worcester 8, Mass., Phone 6-6207. Reprs.: Harold S. Bolger, 1139-51 E. Chelton Ave., Philadelphia 38 Pa., Phone GE 8-0500; E. Jack Lawrence, 224½ Forsyth St., S.W., Box 4072, Atlanta, Ga., Phone Walnut 5250; K. McCoy Crytz, Opelika, Ala., Phone Opelika 254-J; Jack Dempsey, 219-223 S. Linwood St., Gastonia, N. C., Phone 5-5021; Charles A. Haynes, Jr., 749 Narragansett Parkway, Gaspee Plateau, Providence 5, R. I., Phone Hopkins 1-7679; Carl M. Moore, 219-223 S. Linwood St., Gastonia, N. C., Phone 5-5021; Ralph C. Shorey, 44-46 Vine St., Worcester 8, Mass., Phone 6-6207. Sou. Plants: Atlanta, Ga., and Gastonia, N. C.; Branch: Philadelphia, Pa.

HUNTER MACHINE CO., JAMES, North Adams, Mass. Sou. Repr.; Carl Endlein, 1734 Candler Bldg., Atlanta 3, Ga. Sou. Service Plant for Cloth Expanders, Thomas Leyland Machinery Co., Inc., 114 McKoy St., Greenville, S. C., Ralph C. Wing.

IDEAL INDUSTRIES, INC., Bessemer City, N. C., A. W. Kincaid, Jr.

IDEAL MACHINE CO., Bessemer City, N. C., A. W. Kincaid, Mgr.

INDUSTRIAL ELECTRONICS CORP., Newark, N. J. Reprs. in Washington, D. C.; Charlotte, N. C.; Atlanta, Ga.; Durham, N. C.; Tampa, Fla.; Birmingham, Ala.; Memphis, Tenn.; Savannah, Ga.

JACOBS SOUTHERN & NORTHERN DIV., E. H. (The Bullard Clark Co.), Charlotte, N. C., and Danielson, Conn. Sou. Plant, Warehouse and Office, P. O. Box 3096, South Blvd., Charlotte, N. C. Sou. Exec.; Edward Jacobs Bullard, Pres., and C. W. Cain, V-Pres. and Gen. Mgr., both of Charlotte, N. C. Sou. Service Engineers; S. B. Henderson, Box 133, Greer, S. C.; L. I. Froneberger, Jr., 523 Woodland Dr., Greensboro, N. C.; Ralph M. Briggs, Jr., 399 Lofton Rd., N.W., Atlanta, Ga., Frank W. Beaver, Concord, N. C.; Bill Heacock, 315 Popular St., Sylacauga, Ala.; L. J. McCall, 536 E. Faris Rd., Greenville, S. C.

JARRETT CO., CECIL H., Newton, N. C.

JENKINS METAL SHOPS, INC., Gastonia, N. C.

JOHNSON, CHARLES B., Paterson, N. J. Sou. Repr.: T. E. Lucas Associates, Inc., 117 E. Third St., Charlotte, N. C.

KEEVER STARCH CO., Columbus, Ohio. Charles C. Switzer, Textile Sales Mgr., 1200 South Carolina National Bank Bldg., Greenville, S. C.; Luke J. Castile, 3015 Forest Park Dr., Charlotte, N. C.; Robert E. DeLapp, Jr., Greenville, C. C. Office; James C. Jacobs, 779 Maple St., Spartanburg, S. C.; E. Hays Reynolds, Greenville, S. C., Office; F. M. "Ted" Wallace, 804 College Ave., Homewood, Birmingham, Ala. Sou. Warehouses Charlotte, N. C., and Greenville, S. C.

KENNEDY CO., W. A., 1814 S. Tryon St., Charlotte 3, N. C.

LAMBETH ROPE CORP., New Bedford, Mass. Frank Burke, Phone 653, Kings Mountain, N. C.; J. P. O'Leary, Phone 5-5451, Greenville, S. C.; Stuart E. Campbell, Columbus, Ga.

LANDIS, INC., OLIVER D., 718 Queens Rd., Charlotte 7, N. C. P. W. Coleman, Box 1393, Greenville, S. C.; Carl W. Welch, Jr., P. O. Box 302, Gastonia N. C., Western N. C. Repr.; C. G. Seabrook, Jr., Box 6, Anderson, S. C., Ga. and Ala. Repr.

LAUREL SOAP MFG. CO., INC., 2607 E. Tioga St., Philadelphia, Pa. Sou. Repr.; A :Henry Gaede, P. O. Box 1083, Charlotte, N. C.

LIVERMORE CORP., H. F., Allston Station, Boston 34, Mass. Executive Offices and Plant, Boston 34, Mass. Sou. Div. H. F. Livermore Corp., 123-125 Henry St., Greenville, S. C. Sou. Reprs.: Ernest W. Fanning, 407 Jefferson Ave., East Point, Ga.; Charlie E. Moore, 2323 Morton St., Charlotte, N. C.; William T. Jordan, 34 Woodvale Ave., Greenville, S. C.

LOPER CO., RALPH E., 500 woodside Bldg., Greenville, S. C. New England Office, Buffington Bldg., Fall River, Mass.

M B MFG. Co., INC., 1060 State St., New Haven 11, Conn. Sou. Reprs.: Oliver D. Landis, 718 Queens Rd., Charlotte 7, N. C., for the States of North and South Carolina; R. B. Dorman, 1000 Peachtree St., Atlanta, Ga., for the States of Alabama and Georgia.

M-B PRODUCTS, 46 Victor Ave., Detroit 3, Mich. Sou. Reprs.: Virginia, South Carolina and Tennessee, Wilson F. Hurley, P. O. Box 1443, Greenville, S. C.; Georgia, Alabama and Mississippi, J. W. Davis, P. O. Box 745, Columbus, Ga.; Texas and Arkansas, R. D. Hughes Sales Co., 1812 Main St., Dallas 1, Tex.; North Carolina, Charlotte Supply Co., Charlotte 1, N. C. (Supply House).

McLEOD LEATHER & BELTING CO., Greensboro, N. C.

MARQUETTE METAL PRODUCTS CO., THE, 1145 Galewood Drive, Cleveland 10, O. Sou. Reprs.: C. H. White, 2300 Roswell Ave., Charlotte 7, N. C.; W. P. Russell, Box 778, Atlanta, Ga.

MARTHA MILLS DIVISION, Silvertown, Ga. Sou. Sales Agents: Walter T. Forbes Co., Chattanooga, Tenn.

MEADOWS MFG. CO., P. O. Box 4354, Atlanta, Ga. N. C. Repr.: Walter S. Coleman, P. O. Box 782, Salisbury, N. C.; S. C. Repr.; James P. Coleman, P. O. Box 1351, Greenville, S. C.; Ga., Ala. and Tenn. Repr.: R. L. Holloway, P. O. Box 4334, Atlanta, Ga.

MEDLEY MFG. CO., INC., 400 32nd St., Columbus, Ga. L. H. Morrison, Pres.; Cason J. Callaway, Jr., V.-Pres. and Treas.; Harry L. George, Sec.; E. P. Waite, Chief Engineer; E. S. Livingston, Chief Technician; C. E. Hett, Jr., Columbus Div. Repr.; Robert Pharr, Carolina Div. Repr., Charlotte, N. C.

MILL DEVICES CO., Gastonia, N. C. R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex., Texas and Arkansas: Eastern Repr.: (including Canada) C. E. Herrick, 44 Franklin St., Providence, R. I.; European Repr.: Mellor, Bromley & Co., Ltd., Leicester, England.

MOORESVILLE IRON WORKS, P. O. Box 246, Mooresville, N. C.

MOUNT HOPE MACHINERY CO., 15 Fifth St., Taunton, Mass. Sou. Reprs.: Slaughter Machinery Co., E. F. Slaughter and A. P. Sommer, P. O. Box 2425, Charlotte 1, N. C.; J. Fred Slaughter, 2001-C Claymore Dr., Marietta, Ga.

NATIONAL ANILINE DIVISION, Allied Chemical & Dye Corp., Gen. Office, 40 Rector St., New York 6, N. Y. Julian T. Chase, Res. Mgr.; Kenneth Mackinzie, Asst. to Res. Mgr., 201 W. First St., Charlotte, N. C. Salesmen: Wyss L. Barker and Harry L. Shinn, 201 W. First St., Charlotte, N. C.; Geo. A. Artope and R. F. Morris, Jr., Jefferson Standard Bldg., Greensboro, N. C.; H. A. Rogers and Chas. A. Spratt, 1202 James Bldg., Chattanooga 2, Tenn.; J. K. Boykin, American Savings Bank Bldg., Atlanta, Ga.; W. H. Jackson, 213 Columbus Interstate Bldg., Columbus, Ga.; A. Jones, Jr., 408 Cotton Exchange Bldg., New Orleans, La.; Henry A. Cathey, 403 E. Franklin St., Room 210, Richmond, Va.

NATIONAL RING TRAVELER CO., Philip C. Wentworth, Treas., 354 Pine St., Pawtucket, R. I. Sou. Office and Warehouse, 131 W. First St., Charlotte, N. C. Gen. Mgr., L. E. Taylor, Pawtucket, R. I. Sou. Reprs.: Donald C. Creech, Charlotte, N. C.; Frank S. Beacham, P. O. Box 281, Honea Path, S. C.; W. Harry King, P. O. Box 272, Atlanta, Ga.; M. L. Johnston, 131 W. First St., Charlotte, N. C.; H. Haley Ector, West Point, Ga.

N. Y. & N. J. LUBRICANT CO., 292 Madison Ave., New York 17, N. Y. Sou. Office and Warehouse: 634 S. Cedar St., Charlotte, N. C., Phone 3-7191. Falls L. Thompson, Sou. Mgr., 634 S. Cedar St., Charlotte, N. C.; Carrol A. Campbell, Mgr. Loom Lubrication Div., P. O. Box 782, Greenville, S. C. Sales and Service Engineers: Fred W. Phillips, P. O. Box 782, Greenville, S. C.; Jas. A. Sorrells, Jr., P. O. Box 576, Charlotte, N. C.; Fred Winecoff, Greensboro, N. C.; Julian T. Pool, P. O. Bov 316, LaGrange, Ga. Warehouses: Charlotte, N. C., Greensboro, N. C., Greenville, S. C., Atlanta, Ga., Columbus, Ga., Birmingham, Ala.

NORLANDER-YOUNG MACHINE CO., New Bedford, Mass. Sou. Plant, York Road, Gastonia, N. C.

NORRIS BROS., Greenville, S. C.

NORTH, INC., FRANK G., P. O. Box 123, Sta. A, Atlanta, Ga., Tel. Raymond 2196; P. O. Box 92, Marietta, Ga., Tel. 1509. Reprs.: Chas. B. Elliott, Box 433, Griffin, Ga., Tel. 4014; Raymond J. Payne, Box 6000, Charlotte 7, N. C., Tel. 6-2025; A. V. McAlister, Box 324, Greenwood, S. C., Tel. 7668; J. C. Alexander, Box 56, Spartanburg, S. C., Tel. 5568; Frank G. North, Pres., and Mark W. Mayes, V.-Pres., Atlanta, Ga.

PABST SALES CO., 221 N. LaSalle St., Chicago 1, Ill. Sou. Repr.: C. H. Patrick, P. O. Box 300, Salisbury, N. C., Phone 1066. Sou. Warehouse, Textile Warehouse Co., Greenville, S. C.

PADDOCK CO., J. C., Spartanburg, S. C.

PEASE & CO., J. N., 119½ E. Fifth St., Charlotte, N .C.

PENICK & FORD, LTD., INC., 420 Lexington Ave., New York City: Cedar Rapids, Iowa. P. G. Wear, Sou. Sales Mgr., 806 Bona Allen Bldg., Atlanta 3, Ga.; J. H. Almond, Glenn M. Anderson, W. J. Kirby, Atlanta Office: C. T. Lassiter, Greensboro, N. C.; Guy L. Morrison, L. C. Harmon, Jr., 902 Montgomery Bldg., Spartanburg, S. C.; T. H. Nelson, Charlotte, N. C.; W. R. Brown, 1214 Liberty National Bank Bldg., Dallas, Tex. Stocks carried at convenient points.

PERFECTING SERVICE CO., 332 Atando Ave., Charlotte, N. C. Offices in Jersey City, N. J.; Chicago, Ill.; Philadelphia, Pa.; Cleveland, Ohio; Pawtucket, R. I.;

PHILADELPHIA QUARTZ CO., Public Ledger Bldg., Philadelphia 6, Pa. Sou. Reprs.: F. Homer Bell, 2624 Forest Way, N.E., Atlanta 5, Ga.; Richard D. Greenway, 1308 Kings Drive, Charlotte 3, N. C. Textile Distributors: Southern States Chemical Co., Atlanta, Ga.; F. H. Ross & Co., Inc., Southern States Chemical Co., Charlotte, N. C.; Southern States Chemical Co., Greenville, S. C.; Marlow-Van Loan Corp., High Point, N. C.; Taylor Salt & Chemical Co., Norfolk, Va.

PIEDMONT PROCESSING CO., Belmont, N. C. Tel. 352-353.

PILOT LIFE INSURANCE CO., Jos. F. Freeman, Vice-President in Charge of Group Department, Greensboro, N. C.

PIONEER HEDDLE & REED CO., INC., P. O. Box 116, Sta. A, 1374 Murphy Ave., S.W., Atlanta, Ga., Tel. Raymond 2136-2137. Reprs.: Raymond J. Payne, Box 6000, Charlotte 7, N. C., Tel. 6-2025; J. Cantey Alexander, Box 56, Spartanburg, S. C., Tel. 5568; Charles B. Elliott, Box 433, Griffin, Ga., Tel. 4014; A. V. McAllister, Box 324, Greenwood, S. C., Tel. 7668, Mark W. Mayers, Pres. and Treas., Emile LeClair, V.-Pres., Glee B. Thompson, Sec., Frederick M. Suchke, Plant Mgr., Atlanta, Ga., Tel: Raymond 2136.

PNEUMAFIL CORP., 2516 Wilkinson Blvd., Charlotte, N. C.

PROCTOR & SCHWARTZ, INC., 7th Ave. and Tabor Road, Philadelphia 20, Pa. Sou. Office: Wilder Bldg., Charlotte, N. C. Sales and Service Branch, Spartanburg, S. C.; Walter Egbert, Mgr.

PRUFCOAT LABORATORIES, INC., Main Office and Factory, 63 Main St., Cambridge 42, Mass. (Tel. Eliot 4-0200). Sales Office: 50 East 42nd St., New York 17, N. Y. (Tel. Murray Hill 2-2240). Reprs.: Homer Arey, P. O. Box 641, Concord, N. C. (Tel. Concord 2-7211); A. B. Belmore, 155 Fern Ave., Collingswood, N. J. (Tel. Collingswood 5-4209R); Equipment Sales Corp., 1457 Bristol Highway, Kingsport, Tenn. (Tel. Kingsport 2740); McJunkin Corp., P. O. Box 513, Charlestown, West Virginia. (Tel. Charlestown 2-6144)

RAGAN RING CO., Atlanta, Ga. N. C. Repr.: John H. Foard, Box 574, Newton, N. C.

RAYBESTOS-MANHATTAN, INC., GENERAL ASBESTOS & RUBBER DIV., Passiac, N. J. Factory: North Charleston, S. C. Southern Distributors: Alabama—Teague Hdw. Co., Montgomery; Anniston Hdw. Co., Anniston; Long-Lewis Hdw. Co., Birmingham; Gadsden Hdw. Co., Gadsden. Georgia-American Mchy. Supply Co., Atlanta; Bibb Supply Co., Macon. Kentucky—Graft-Pelle Co., Louisville. North Carolina—Charlotte Supply Co., Charlotte; Dillon Supply Co., Raleigh, Durham and Rocky Mount; Kester Mchy. Co., Winston-Salem, High Point and Burlington. South Carolina—The Cameron & Barkley Co., Charleston; Carolina Supply Co., Greenville; Columbia Supply Co., Columbia; Montgomery & Crawford, Inc., Spartanburg; Sumter Mchy. Co., Sumter; Tennessee-Chattanooga Belt & Sup. Co., Chattanooga; Summers Hdw. & Sup. Co., Johnson City; Power Equipment Co., Knoxville; Buford Bros., Inc., Nashville; Lewis Supply Co., Memphis. Virginia—Industrial Supply Corp., Richmond.

REINER, INC., ROBERT, 550-64 Gregory Ave., Weehawken, N. J. Sou. Reprs.: John Klinck, 304 W. Forest Ave., North Augusta, S. C., and H. Walter Fricke, Box 9155, Charlotte, N. C. (Hosiery Machines).

RHOADS & SONS, J. E., 35 N. Sixth St., Philadelphia 6, Pa. Sou. Office: J. E. Rhoads & Sons, 88 Forsyth St., S.W., Atlanta, Ga., P. O. Box 4305. C. R. Mitchell, Mgr. Sou. Reprs.: J. Warren Mitchell, P. O. Box 1539, Greenville, S. C.; A. S. Jay, P. O. Box 687, Sylacauga, Ala.; J. T. Hoffman, P. O. Box 4305, Atlanta, Ga.; L. H. Schwoebel, 615 Roslyn Rd., Winston-Salem, N. C.; Textile Supply Co., 301 N. Market St., Dallas, Tex.

RICE DOBBY CHAIN CO., Millbury, Mass. Sou. Reprs.: R. E. L. Holt, Jr., Associates, P. O. Box 1474, Jefferson Bldg., Greensboro, N. C.

ROBERT & CO., ASSOCIATES, Atlanta, Ga.

ROY & SON CO., B. S., Worcester, Mass. Sou. Office and Supply Depot: 1623 N. Tryon St., Charlotte, N. C. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Textile Supply Co., Dallas, Tex.

ROYCE CHEMICAL CO., Carlton Hill, N. J. Sou. Repr.: Irving J. Royce, 2008 Belvedere Ave., Charlotte, N. C.

SACO-LOWELL SHOPS, 60 Batterymarch St., Boston, Mass. Sou. Office and Supply Depot, Charlotte, N. C.; H. M. Walsh, J. W. Hubbard, W. A. Thomas, Jr., Selling Agts. Atlanta, Ga.; 101 Marietta St.: Miles A. Comer, Herman J. Jones, Selling Agts.; Greenville, S. C., Woodside Bldg.: Chas. S. Smart ,Jr., Perry Clanton, Selling Agts.

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N. Y. Sou. Office: 1510-12 Camden Rd., Charlotte, N. C., A. T. Hanes, Jr., Mgr.

SARGENT'S SONS CORP., C. G., Graniteville, Mass. Sou. Reprs.: W. S. Anderson, Carolina Specialty Co., Charlotte 7, N. C.; Philadelphia Repr., F. E. Wasson, 519 Murdoch Rd., Philadelphia 19, Pa.

SCHMIDT MFG. CO., P. O. Box 560, 280-292 North St., New Bedford, Mass. Sou. Plant: Greenville Belting Co., P. O. Box 59, 206 Emile Ave., Greenville, S. C.

SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga., Vasser Woolley, Pres. Reprs.: John R. Seydel, E. A. Scott, A. Pate, J. E. Spearman, V. R. Mills, Atlanta, Ga.; W. L. Whisnant, Concord, N. C. Northern and Export Repr.: Standard Mill Supply Co., 1064-1090 Main St., Pawtucket, R. I. (conditioning machinery and penetrants only). Southwestern Reprs.: O. T. Daniel, Textile Supply Co., 301 N. Market St., Dallas, Tex.; Welling LaGrone, 13 W. Fairview Ave., Greenville, S. C.

SINCLAIR REFINING CO., Dist. Office, 573 W. Peachtree St., Atlanta, Ga., F. W. Schwettmann, Mgr., Lubricating Sales; G. R. Dyer, National Accounts Repr.; Area Offices: Atlanta, Ga., Birmingham, Ala., Jacksonville, Fla., Miami Fla., Tampa, Fla., Columbia, S. C., Charlotte, N. C., Nashville, Tenn., Jackson, Miss., Montgomery, Ala., Raleigh, N. C., and Macon, Ga. Industrial Lubricating Engineers: R. O. Miller, 15 Miller Ave., Concord, N. C.; J. O. Holt, 1220 Dixie Trail, Raleigh, N. C.; W. H. Lipscomb, 414 McIver St., Greenville, S. C.; R. A. Smith, 121 Island Home Blvd., Knoxville, Tenn.; C. C. Nix, 1926 Sixteenth Ave., So., Birmingham, Ala.; L. M. Kay, 332 Eighth St., N.E., Atlanta, Ga., and H. H. Terrell, P. O. Box 131, Lakeland, Fla.

SINGLETON & SONS, RUSSELL A., Blanco, Tex. Sou. Reprs.: R. T. Hamner, P. O. Box 267, Gastonia, N. C.; Ralph Gossett, Jr., Ralph Gossett Mill Supplies, 8 S. Church St., Greenville, S. C.; James W. Heacock, 609 Hillcrest Dr., Talladega, Ala.; Paul S. Jones, 208 Lane Circle, LaGrange, Ga.; Phil Morgan, 401 S. Lewis St., LaGrange, Ga.; Julian W. Still, 1708 Peachtree St., N.E., Apt. 20, Atlanta, Ga.

SIRRINE CO., J. E., Greenville, S. C.

SLIP-NOT BELTING CORP., Kingsport, Tenn., Otto Cox, Sales Mgr., P. O. Box 3061, Phone 3-1365, Greensboro, N. C.; E. S. Meservey, Ga. and Ala., 215 N. Candler St., Decatur, Ga., Phone Dearborn 4523; G. H. Spencer, P. O. Box 1297, Gastonia, N. C., part N. C.; O. L. "Blackie" Carter, part S. C., Box 2206, Phone 5-2111, Greenville, S. C.; T. E. Doane, part Tenn., Northern Ala., Ky., W. Va., Box 44, Phone 3100, Kingsport, Tenn.; John R. Youngblood, part N. C., Va., Maryland, Pa. and N. J., Phone 284, 1012 St. David St., Tarboro, N. C.

SMITH & SON, E. E., Gastonia, N. C.

SNAP-ON TOOLS CORP., General Offices: 3046—28th Ave., Kenosha, Wis. Branches at: 380 Techwood Dr., N.W., Atlanta, Ga., Branch Mgr., C. M. Wendell; 1209 E. 25th St., Baltimore 18, Md.; R. C. Lapp, Br. Mgr.: 915 S. Clarkson St., Charlotte 6, N. C.; G. M. Weitz, Br. Mgr., 605 E. McMillan St., Cincinnati 6, Ohio, H. E. Gage, Br. Mgr.; 2932 Commerce St., Dallas 1, Tex., C. C. Boutwell, Br. Mgr.; 1602 Walnut St., Jacksonville 6, Fla., A. B. Woodham, Br. Mgr.; 1040 Camp St., New Orleans 13, La., L. G. Melton, Br. Mgr.; 1617 W. Broad St., Richmond 20, Va., C. F. Wenderoth, Br. Mgr.

SOLVAL SALES DIVISION, ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. Sou. Branch: 212 S. Tryon St., Charlotte, N. C.; H. W. Causey, Branch Mgr. Sou Reprs.: Earl H. Walker, High Point, N. C.; Richard Hoyt, 1216 Edgewood Ave., Jacksonville, Fla.; Robert P. Baynard, Charlotte, N. C.; Charles E. Varn, 307 Elmwood Dr., Greensboro, N. C.

SOMERVILLE-SEYBOLD DIVISION of HENLEY PAPER CO., 700 Murphy Ave., S.W., Atlanta, Ga.

SONOCO PRODUCTS CO., Hartsville, S. C.

SOUTHERN ELECTRIC SERVICE CO., Charlotte, Greensboro, N. C.; Greenville, Spartanburg, S. C.

SOUTHERN EQUIPMENT SALES CO., (N. C. Equipment Co.), Charlotte, N. C.

SOUTHERN SHUTTLES DIVISION, Steel Heddle Mfg. Co., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service. Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., V.-Pres. and Mgr. of Southern Divisions. Davis L. Batson and Sam Zimmermann, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufmann, Jr., Mgr.

SOUTHERN SPINDLE & FLYER CO., Charlotte, N. C.

STALEY MFG. CO., A. E., Decatur, Ill. Sou. Offices, 2000 Rhodes-Haverty Bldg., Atlanta, Ga. Wm. H. Randolph, Jr., Southeastern Mgr.; W. N. Dulaney, Asst. Southeastern Mgr. Sou. Reprs.: L. A. Dillon, 815 Third St., Durham, N. C.; H. A. Mitchell, Montgomery Bldg., Spartanburg, S. C.; W. T. O'Steen, Rt. 5, Greenville, S. C.; Walter P. Hope, 1160 Tate Drive, Columbus, Ga.

STANDARD MILL SUPPLY, INC., 2319 Hutchinson Ave., Charlotte, N. C. A. Benson Davis, V.-Pres. Repr.: J. Kenneth Sumner.

STANLEY WORKS, THE, New Britain, Conn. Sales Reprs.: G. H. Little, Harrison Bldg., Room 414, 4 S. 15th St., Philadelphia, Pa., Tel. Rittenhouse 9977; G. R. Douglas, 707 Columbian Mutual Towers, Memphis 3, Tenn., Tel. 8-7117; M. A. Hawkins, 3803 General Taylor St., New Orleans 15, La., Tel. Magnolia 5353; H. C. Jones, care The Stanley Sales Co., 410 Candler Bldg., Atlanta, Ga., Tel. Lamar 4651; G. J. McLernon, 209 Hubbard St., San Antonio 2, Tex., Tel. Travis 3653; Charles J. Turpie, Jr., 1412 Scott Ave., Charlotte, N. C., Tel. 3-7015; J. A. Dickson, P. O. Box 390, 112 Bales Ave., Phone 9-2812, Chattanooga, Tenn.; T. P. West, Jr., 10 Seminole, Dr., Greenville, S. C., Tel. 3-5932.

STEEL HEDDLE MFG. CO., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service, Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., V.-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmermann, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufmann, Jr., Mgr.

STEIN, HALL & CO., INC., 285 Madison Ave., New York N. Y. Charlotte Office: 1620 W. Morehead St., Charlotte, N. C., F. W. Perry, Mgr., P.O. Box 809; N. C., Va. and Tenn. Repr.: W. S. Gilbert, Charlotte, N. C.; S. C. Repr.: Crawford H. Garren, P. O. Box 303, Pendleton, S. C.; Atlanta Office: 80 W. Peachtree Place, N. W., Atlanta, Ga., E. D. Estes, Mgr., 1257 Durand Drive, N. W.; Ala. Repr.: J. E. Myrick, 302 24th St., Tuscaloosa, Ala.; Ga. Repr.: Rodney Simpson, 80 W. Peachtree Pl. N. W., Atlanta, Ga.

STERLING RING TRAVELER CO., 101 Lindsay St., Fall River, Mass. Sou. Reprs.: M. H. Cranford, 135 Walnut St., Chester, S. C.; D. R. Ivestor, Clarkesville, Ga.; T. B. Farmer, Box 150, Langley, S. C.

STODGHILL & CO., Atlanta, Ga.

TERRELL MACHINE CO., THE, Charlotte, N. C. E. A. Terrell, Pres., W. S. Terrell, Sales Mgr.

TEXAS CO., THE, New York, N. Y. Dist. Offices, Box 901, Norfolk, Va., and Box 1722, Atlanta, Ga. Bulk Plants and Warehouses in all principal cities. Lubrication Engineers: P. C. Bogart, Norfolk, Va.; W. H. Goebel, Roanoke, Va.; F. M. Edwards, Raleigh, N. C.; W. P. Warner, Greensboro, N. C.; C. W. Meadors, Charlotte, N. C.; J. S. Leonard, Greenville, S. C.; F. G. Mitchell, Columbia, S. C.; L. C. Mitchum, Atlanta, Ga.; A. C. Keiser, Jr., Birmingham, Ala.; J. E. Buchanan, Munsey Bldg., Baltimore, Md.; G. W. Wood, Charlotte, N. C.; J. H. Murfee, Greensboro, N. C.; G. B. Maupin, Greensboro, N. C.; W. T. Allen, Greensboro, N. C.; C. T. Hardy, Durham, N. C.; J. G. Loudermilk, Atlanta, Ga.; A. C. Evans, Macon, Ga.; J. S. Sammons, Birmingham, Ala.; J. M. Malone, Montgomery, Ala.; H. E. Meunter, Charlotte, N. C.; C. B. Fischer, Goldsboro, N. C.

TEXTILE APRON CO., East Point, Ga.

TESXTILE SHOPS, THE, Spartanburg, S. C. E. J. Eaddy.

THORNBURG MACHINE WORKS, INC., P. O. Box 186, Dallas, N. C. C. O. Thornburg and F. B. McDonald.

TIDE WATER ASSOCIATED OIL CO., 17 Battery Place, New York, N. Y. S. E. District Office, 3119 S. Blvd., Charlotte 3, N. C., K. M. Slocum, Dist. Mgr., Tel. Charlotte 2-3063. Sales Reprs.: L. A. Watts, Jr., 407 N. Allen Ave., Richmond, Va. Tel. Richmond 4-8944; W. R. Harper, 1806 Madison Ave., Greensboro, N. C., Tel. Greensboro 8784; L. G. Compton, Jr., No. 1 Robinson St., Elizabeth Apts, Greenville, S. C.; Tel. Greenville 2-9222.

TOWER IRON WORKS, 50 Borden St., Providence 3, R. I. Sou. Reprs.: Ira L. Griffin & Sons, Charlotte 1, N. C., Tel. Charlotte 4-8306.

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I. Sou. Office and Sales Room: 1903 Augusta Rd., Greenville, S. C. Sou. Reprs.: William P. Vaughan and Wm. H. Rose, P. O. Box 1048, Greenville, S. C.; Oliver B. Land P. O. Box 1187, Athens, Ga.; Harold R. Fisher, P. O. Box 83, Concord, N. C.

UNITED STATES TESTING CO., INC., 1415 Park Ave., Hoboken, N. J. Sou. Branches: United States Testing Co., Inc., 198 S. Main St., Memphis, Tenn., Tel. Memphis 38-1246, manager S. C. Mayne; 1700 Cotton Exchange Bldg., Dallas, Tex., Tel. Prosp. 2654.

UNIVERSAL WINDING CO., P. O. Box 1605, Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C.; Agts.; R. M. Mauldin and D. M. Dunlap; 903 Whitehead Bldg., Atlanta, Ga., Agt. J. W. Stribling.

USTER CORP., 80 Boylston St., Boston 16, Mass. Sou. Office: Uster Corp., Charlotte, N. C.

VALENTINE CO., J. W., 612 S. Main St., Winston-Salem, N. C.; Box 278 Salem Station, Winston-Salem, N. C. T. Holt Haywood, Wachovia Bank & Trust Co. Bldg., Winston-Salem, N. C.

VEEDER-ROOT, INC., Hartford, Conn. Sou. Office, Room 231 W. Washington St., Greenville, S. C., Frank J. Swords, Sou. Dist. Mgr.

VICTOR RING TRAVELER CO., Providence, R. I., with Sou. Office and Sales Room at 358-364 W. Main Ave., P. O. Box 842, Gastonia, N. C. Phone 247. Also W. L. Hudson, Box 1313, Columbus, Ga.

WAK INDUSTRIES, 1314 Tryon St., Charlotte, N. C.

WARWICK CHEMICAL CO., DIV. SUN CHEMICAL CORP. Main Office: 1010 44th Ave., Long Island City, N. Y. Sou. Plant: 907 White St., Rock Hill, S. C., J. D. Snipes, Mgr. Sou. Reprs.: M. M. McCann, Box 825, Burlington, N. C.; H. Papini, E. R. Adair, Box 1207, Greenville, S. C.; W. E. Searcy, 425 Tilney Ave., Griffin, Ga.

WATSON & DESMOND, 301½ W. Fourth St., Charlotte 1, N. C. Repr.: John Wyatt, Jefferson Standard Bldg., Greensboro, N. C.; R. V. McPhail, 709 S. Jackson St., Gastonia, N. C.;A. J. Bahan, Woodside Bldg., Greenville, S. C., Edgar E. Ball, (Chemical Dept.) Charlotte, N. C.

WATSON & HART, 1001 E. Bessemer Ave., Goldsboro, N. C.

WATSON-WILLIAMS MFG. CO., Millbury, Mass. Sou. Reprs.: John Wyatt, 703 Jefferson Bldg., Greensboro, N. C.; Arthur J. Bahan, 810 Woodside Bldg., Greenville, S. C.

WEST POINT FOUNDRY & MACHINE CO., West Point, Ga.

WESTPORT FIBRE CORP., Westport, Mass., Va. and N. C. Repr.: Oliver D. Landis, Inc., 718 Queens Rd., Charlotte 7, N. C.; Ga., Ala. and Tenn. Repr.: J. W. Davis, 122 Dillingham St., Columbus, Ga.; S. C. Repr.: Ralph Gossett, 15 Augusta St., Greenville, S. C.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Office, Whitin Machine Works Office and Plant, Dowd Road, Charlotte, N. C., R. I. Dalton, V.-Pres. and Sou. Agt.; Charlotte Repair Shop, Z .C. Childers, Sales Mgr.; Atlanta, Ga., Office, 1015 Healey Bldg., B. B. Peacock, Sou. Agt.; Spartanburg, S. C., 724 Montgomery Bldg., R. W. Dunn, Sou. Agt.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass. Sou. Repr.: William K. Shirley, 11 Wyuka St., Greenville, S. C.

WILKIN & MATTHEWS, 831 N. Tryon St., Charlotte, 3, N. C. Hugh Wilkin and John Matthews.

WILSON CO., EMIL V., Greenville, S. C.

WOLF, JACQUES & CO., Passaic, N. J. Sou. Reprs.: C. R. Bruning, 302 N. Ridgeway Dr., Greensboro, N. C.; G. W. Searell, Rt. 15, Knoxville, Tenn.

CLASSIFIED ADVERTISING

FOR SALE

14—40" H & B Cards, 26" Doffers, 12" Coilers.
11—40" Mason Cards, 27" Doffers, 12" Coilers.
11—8 x 4 Saco-Lowell Slubbers, J-3 long draft, 6" gauge, 8-144 spindles, 3-136 spindles.
2—NEW Gridaire Cleaners.
3—No. 101 Foster Winders, double motors, 100 spindles each, paper cones.
1,000—12 x 36 Fibre roving cans.

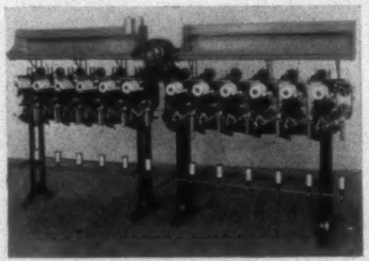
WILSON LEWITH MACHINERY CORP.

Post Office Box 4100
Charlotte 1, N. C.

Phone 4-2403

Warehouse: Wilkinson Blvd.
Behind Barbecue Lodge

REBUILT WINDERS



We thoroughly rebuild all types of Yarn Winding Equipment—Universal No. 5, No. 6, No. 10, No. 50, No. 60 and No. 90; Foster Model No. 12, No. 30 and No. 101, Lazenby, Oswald Lever, Sipp Eastwood, Atwood, George Payne.

STANDARD MILL SUPPLY

6708 Empire State Bldg.
New York, N. Y.

1064-1080 Main St.
Pawtucket, R. I.

2319 Hutchison Ave.
Charlotte, N. C.

WANTED

Overseer of Carding and Spinning for 22,000 spindle mill on medium count yarns, to commence work January-February, 1952. Give complete information and references in application.

Reply to "Overseer"
Care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

POSITION WANTED

Twenty years' experience on package and skein dyeing using vats, naphthols developes, sulphur, direct aftertreated dyestuff. High school and I. C. S. Chemistry graduate. Satisfaction guaranteed. 43 years old, married, sober, dependable. Successful in handling help. Production and cost conscious. Now employed. References. Can come for interview.

Reply "Confidential," care Textile Bulletin
P. O. Box 1225, Charlotte, 1, N. C.

NEED A RECREATION DIRECTOR?

We are in touch with an especially well qualified man who would like a job as recreation or personnel director with some textile mill company.

He is a graduate of the School of Textiles at North Carolina State College but went directly into professional baseball.

He pitched for the New York Yankees for twelve years, for Washington for three years and for the Chicago White Sox for three years. He is still a good pitcher and in excellent health but naturally can not pitch regularly.

He is a man of fine personality and gets along well with young people.

Write "LR," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

RAYON TECHNOLOGY

Prepared by the Textile Research Department of the American Viscose Corporation

273 pages, 6 x 9, illustrated, $4.25

Brings you modern technological methods and techniques for handling rayon on machinery originally designed to handle natural fibers, as well as on newly developed equipment. It shows mill men in all divisions of the textile industry the most effective methods for processing rayon into yarn, greige goods, and finishing fabrics. Designed as a practical guide by outstanding technicians in the field, this book emphasizes the every-day applications of the methods described, stressing the HOW of rayon handling.

Order from:

TEXTILE BULLETIN
Charlotte, N. C.

EATON & BELL
Patent Attorneys

904 Johnston Bldg., Charlotte, N. C.
753 Munsey Bldg., Washington, D. C.

WANTED

Superintendent or Assistant Superintendent's position with cotton mill. Well experienced in both capacities. Textile School graduate with 13 years' excellent experience making drills, ticking, corduroy, draperies, duck, etc. Can guarantee results in high efficiency and quality. A-1 references furnished. All inquiries answered promptly.

Write "D-G," care Textile Bulletin
P. O. Box 1225, Charlotte, N. C.

POSITION WANTED as overseer. Experienced in twills, drills, sheetings, osnaburgs, corduroys, rayons, denims and gabardines. Have fixed on all new type looms, X, X2s, XPs, XLs and E & L Models. I. C. S. course in warping and plain weaving. Can furnish excellent references. Sober in every respect. Address "Experienced," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

POSITION WANTED as master mechanic or plant engineer. 20 years' experience. Best of references. Immediately available. Write "Ferry," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

COLOR DESIGNER wants part time work. I. C. S. graduate. 25 years' practical experience. J. C. Kellough, 11 Grace St., Concord, N. C.

POSITION WANTED as superintendent of yarn mill. Over 25 years' experience. A-1 references. Now employed. Can come for interview. If machinery is down and productions low, I'm your man. Write "Just," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

CLASSIFIED ADVERTISING

Rates: $4 per inch for bordered insertions; four cents per word for insertions without borders. Minimum charge: $1 per insertion.

TEXTILE BULLETIN
P. O. Box 1225
Charlotte 1, N. C.

THE NEW EDITION OF

Nelson's

PRACTICAL LOOM FIXING

Is Now Available

Completely Revised and Includes a Chapter on the Crompton and Knowles Automatic Magazine.

Cloth Bound
Nearly 100 Illustrations

PRICE $2.00

CLARK PUBLISHING CO.
BOX 1225 CHARLOTTE 1, N. C.

WANTED

Card Grinder with three years or more experience and one experienced Fly Frame Fixer and Spinning Room Man Combination for West Coast Cotton Mill.

Write "Special," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

Read Textile Bulletin Classified Advertising

WANTED

Second hand for twisting and Abbott winders, second shift. Want responsible yarn man capable of instructing or fixing twisters and Abbott winders, Model 65, if called upon. Would consider able fixer with supervisory ability who might be looking for a break. Good pay for right man. Good location in Southwestern State. Address

"Opportunity," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

SUPERINTENDENT WANTED

For weave mill in New Jersey. 140 looms. Experienced on ducks, dobbies and jacquards desirable. Good salary, fine opportunity. Give experience and reference.

Address "Excellent," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

● If you want a new job, if you are seeking someone to fill a position, the classified advertising department of Textile Bulletin is ready to help. The classified section is read by both employees and employers.

HAVE YOU MET

THE DOUBLEAYE JANITORS?

THEY'RE A WHIZ ON CLEANING

LOOK FOR THIS TRADEMARK WHEN YOU BUY JANITOR SUPPLIES

ASPDEN ASSOCIATES, INC.
P. O. BOX 135 1001 BATTLEGROUND AVENUE PHONE 8485
GREENSBORO, N. C.

POSITIONS OPEN—MEN WANTED: We can place tricot mill managers, supts., overseers and fixers; hosiery supt. (foreign); jacquard designers; overseer spring and latch needle knit.; overseer dyeing, narrow fabrics; overseer sewing, tricot fabrics; overseer cotton-rayon yarn and piece goods dyeing; overseer dye. and bleach. knit goods; overseer cutting, underwear; supervisor tex. testing laboratory; chemists, chemical engineers and laboratory men, salary range $3,600-$9,000 year; master mechanics; plant, electrical, mechanical and structural engineers; designers and draftsmen; section hands Barber-Colman warpers and spoolers; salesmen for machinery, chemicals, oils, soaps, dyestuffs, penetrants, starches, threads, etc.; expert on S.6 looms; sewing machine fixers; time study men; industrial engineers; tex. school graduates as trainees for selling and purchasing; loom fixers.

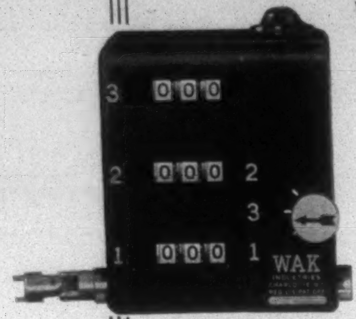
SPECIALISTS IN PLACING AND SUPPLYING TEXTILE MILL EXECUTIVES
CHARLES P. RAYMOND SERVICE, Inc.
294 Washington Street
Phone: LIberty 2-6547
Boston 8, Mass.

FOR LONG RANGE ECONOMY

Over 500 Mills Count On

WAK*

COUNTERS



- RUGGED
- ACCURATE
- DEPENDABLE

We Build To Your Specifications

Reset or Non-Reset,
Single or Multiple Shift

Hank Clocks
Rotary Counters
Tenter Counters
Inspection Counters
Pick Clocks
Twister Clocks

Hosiery Counters
Pairing Counters
Yardage Counters
Slasher Counters
Sewing Counters
Special Counters

See Our Representative, or Inquire Direct

WAK INDUSTRIES
CHARLOTTE, N. C.

*T. M. Reg. U. S. Pat. Office

DRONSFIELD'S PATENT

ATLAS BRAND

EMERY FILLET

STOCKED BY
THE PRINCIPAL MILL SUPPLY HOUSES AND CARD MAKERS

The GASTONIA
MILL SUPPLY CO.

Industrial, Textile, Electrical and
Plumbing Supplies & Equipment

GAMISCO

GASTONIA, NORTH CAROLINA

The Textile Shops

SPARTANBURG, SOUTH CAROLINA

DUST COLLECTING SYSTEMS
VAPOR EXHAUSTING SYSTEMS
ALL TYPES VENTILATING
STAMPING & SCREW MACHINE PRODUCTS
CARD SCREENS
SPINNING CYLINDERS
QUILL CANS, ETC.

COPPER AND STAINLESS STEEL SLASHER CYLINDERS & DRY CANS
COPPERSMITHING & SHEET METAL WORK
COPPER AND STAINLESS STEEL SLASHER ROLLS
SIZE KETTLES & TANKS

Specialists Since 1939 In

TEXTILE CLEARERS

TOP CLEARER BOARD—Made of maple—expertly machined
PLUSH SCAVENGER ROLL—A Specialty
REVOLVING TOP CLEARER ROLL—Featuring uniform covered surfaces
CLEARER CLOTH COTS—Note flat lock seam improvement

"Every Customer a Satisfied One"

E. F. ROSE & CO. Maiden, N. C.

WOODEN TEXTILE SPECIALTIES

CORD FABRIC ROLLS
McCASKIE WOOD TOP ROLLS FOR SPINNING FRAMES
PIN BOARDS
SECTION BEAMS
LOOM LAYS

SHELL ROLLS
UNDERCLEARERS
LOOM BEAMS, ETC.
SHEAVES
LOOM CRANK ARMS
TEMPLE ROLLS

WILLIAM McCASKIE, INC.

ESTABLISHED 1903
Forge Road, Westport, Massachusetts

Southern Representative
Karl Inderfurth, Liberty Life Bldg., Charlotte, N. C.

Before Closing Down

—TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED—

PERSONAL NEWS

Joseph E. Myrick has been appointed technical sales representative in Alabama and Mississippi for Stein, Hall & Co., Inc. Mr. Myrick, who attended Alabama Polytechnic Institute for special work before receiving his degree at the University of Alabama, has been going through an extensive training period in Stein, Hall's laboratories and is now ready to assume his duties. He will make his home in Tuscaloosa, Ala.

N. S. Calhoun, Jr., since 1945 vice-president of American Trust Co., Charlotte, N. C., has been elected a vice-president of Chemical Bank & Trust Co., New York City, and will assist in handling the bank's business in the Southeastern states, including its extensive activity in the textile industry.

Walter W. Gayle, Jr., of Charlotte, N. C., who is associated with Springs Cotton Mills at its Gayle Plant in Chester, S. C., recently was married to Ruth Williams Hayes of Charlotte, daughter of Samuel L. Hayes, Southern manager for the Ciba Co. Mr. Gayle is the son of the late Southern agent for Saco-Lowell Shops.

C. Miller Vernon has been promoted from purchasing agent to director of purchases at Dan River Mills, Inc., Danville, Va. As director of purchases Mr. Vernon succeeds J. Lewis McDonald who resigned to accept a similar post at Springs Cotton Mills, Lancaster, S. C.

Lee C. Bradley, Jr., attorney of Birmingham, Ala., and H. G. Seibels, insurance executive of Birmingham, have been elected to the board of directors of Avondale Mills, Sylacauga, Ala., expanding the board membership from 12 to 14.

Arthur S. Cookman, Jr., assistant manager of the Charlotte, N. C., district sales office of American Viscose Corp., has been appointed assistant manager of the company's rayon staple sales division in New York. He will remain in Charlotte until after the first of the year. Mr. Cookman, who is a graduate of Yale University, has been associated with the Charlotte office of American Viscose since 1942. Previously he was connected with A. D. Juilliard & Co. in a sales capacity.

Dr. Dorothy Thompson, associate professor of chemistry and chairman of that department at Sweet Briar (Va.) College, will spend the second semester of this year engaged in research at the Institute of Textile Technology at Charlottesville, Va. She will be on sabbatical leave from her teaching duties at Sweet Briar. Dr. Thompson has been doing research in cellulose chemistry for a number of years. Prior to coming to Sweet Briar to teach in 1944, she was with the Du Pont Co. for a year. In Charlottesville, Dr. Thompson expects to work with Dr. Jack Compton, technical director of the Institute of Textile Technology, and she also hopes to audit some advanced courses at the University of Virginia.

James Webb of Greensboro, N. C., Henry G. Nichols of New York City and Claude S. Morris of Salisbury, N. C., have been elected vice-presidents of Cone Mills Corp., Greensboro. Mr. Webb, president of Eno Cotton Mills, Inc., a Cone subsidiary, was recently transferred to the Greensboro offices and has taken on additional duties as head of the Tabardrey Plant at Haw River, N. C., succeeding Sidney S. Paine, retired. Mr. Webb has been on the Cone Mills board for some time. Mr. Nichols was formerly treasurer of Dwight Mfg. Co., Alabama City, Ala. He was elected to the Cone Mills Corp. board of directors when the Dwight merger was made last March. Mr. Morris is president of Salisbury Cotton Mills, another Cone subsidiary, and has been on the Cone Mills board for several years. . . . Four officials and one supervisor are retiring from positions with Cone Mills and two subsidiaries. Sidney S. Paine is retiring as a Cone vice-president but will continue to serve on the board of directors. Sigmund Sternberger, former treasurer of Revolution Cotton Mills, before the merger with Cone Mills, is retiring from active work at Revolution Division. He will continue to serve on the Cone board of directors. Maurice Hendrick, former president of Cliffside (N. C.) Mills, and member of the board of directors of Cone Mills Corp. until last year, is also retiring. James R. Young, former secretary-treasurer of Minneola Mfg. Co., Gibsonville, N. C., is retiring from his position as treasurer. He was succeeded as secretary last year by Alan Cone. Luther J. Blackwood is retiring from his position as overseer of the napping department of Revolution flannel plant.

O. E. Fee, manager of the wholesale hardware department, and W. M. Walker, manager of the industrial supply department at Montgomery & Crawford Co., Inc., Spartanburg, S. C., have been elected vice-presidents of the company.

Dr. A. T. McPherson, formerly chief of the organic and fibrous materials division of the National Bureau of Standards, has been appointed associate director of N.B.S. He will be responsible for the co-ordination and direction of the bureau's work in calibration, testing and specifications. . . . Dr. Gordon M. Kline has been appointed chief of the organic and fibrous materials division succeeding Dr. McPherson. Formerly assistant chief of the division and chief of the organic plastics section with the division, Dr. Kline will remain chief of the plastics section for the present.

Walter M. Williams, executive vice-president and manager of Virginia Mills, Inc., Swepsonville, N. C., has been re-elected first vice-president of the Burlington (N. C.) Chamber of Commerce.

Bentz Howard, who has managed the designing department of Dan River Mills, Inc., Danville, Va., is being transferred to the New York office to become assistant general merchandise manager. Henry Mayo, Mr. Howard's present assistant, is also being transferred to New York to become co-ordinator of designing. Both are graduates of North Carolina State College, Raleigh. . . . Kermit Holder, who has had charge of production control at Dan River, also is being moved to the New York office to become manager of inventory control. . . . Richard G. Young, formerly with Mooresville (N. C.) Mills, working out of Chicago, Ill., has joined Dan River as manager of the shirtings department.

M. Brandon Payne, formerly general superintendent of four plants of Cannon Mills Co. in Concord, N. C., recently was appointed to the newly-created position of assistant production manager and D. Ray McEachern, Jr., has been promoted from assistant superintendent at Plant No. 4 to succeed Mr. Payne. . . . Freeman Johnson, formerly assistant superintendent on the second shift, has been promoted to first assistant superintendent at Plant No. 4 to succeed Mr. McEachern.

OBITUARIES

Frank E. Richmond, 75, chairman of the board of the Crompton Co., Providence, R. I., which operates Crompton-Highland Mills, Inc., in Griffin, Ga., and Crompton-Shenandoah Co. at Waynesboro, Va., died Dec. 14 in Winter Park, Fla. Surviving are his widow, a son and two daughters by a former marriage, and a sister.

Dr. James G. Vail, 65, retired vice-president of the Philadelphia (Pa.) Quartz Co., died Dec. 11 in New Delhi, India, where he was working at the Friends International Center for the American Friends Service Committee. Dr. Vail joined the Philadelphia Quartz Co. in 1905 as a chemist. His wife and two sons survive.

MILL NEWS

CHATTANOOGA, TENN.—Standard-Coosa-Thatcher Co., manufacturer of Standard Durene and S-C-T industrial sewing threads, will soon distribute a 50-page book commemorating its 60th anniversary and entitled, *The Story Behind the Story of Standard-Coosa-Thatcher Company.* The book is attractively printed and, with 150 photographs, outlines the growth of the company

BEFORE CLOSING DOWN

from a 60-man business and one plant in Piedmont, Ala., founded by Albert G. Thatcher and Jacob Barlow, in 1891, to its present three-state operation and more than 3,000 employees. Besides its plants in Chattanooga, Tenn., Rossville, Ga., Gadsden and Piedmont, Ala., Standard-Coosa-Thatcher Co. has sales offices in New York, Chicago, Philadelphia, St. Louis, Cincinnati, Dallas, Tex., Reading, Pa., Greensboro, N. C. and Utica, N. Y.

WOONSOCKET, R. I.—William E. Roschen, president of Woonsocket Falls Mill, stated recently that the plant will continue to operate in Woonsocket through 1952. Woonsocket currently has under construction a new plant at Wilmington, N. C. "Maybe this new plant in North Carolina will run independently," Mr. Roschen said.

LANCASTER, S. C.—New machinery for pre-shrinking broadcloth has been delivered and is now being installed at the Grace Bleachery of Springs Cotton Mills near Lancaster. The machinery and the patent rights to it recently were purchased from Mount Hope Finishing Co., North Dighton, Mass., where is was developed and operated successfully.

ITASCA, TEX. — Istaca Yarn Mill, Inc., has been disolved, it is announced from the office of the Secretary of State at Austin.

GASTONIA, N. C.—Associated Spinners, Inc., Dec. 18 announced that it is constructing a new addition to its plant here that will make possible increased production by nearly 30 per cent of the many new synthetic yarns. Revealing construction of the new addition, Milton E. Tager, president of Associated Spinners said the project would be completed early in 1952 and would increase present production facilities by 50 per cent. He added: "We are fully convinced that fine zephyr yarns will continue to hold a prominent position in the apparel industry, and we are continuing, of course, our round-the-clock production of fine worsted yarns. But we recognize the mounting demand for synthetics in knitting and weaving yarns, and we are expanding our facilities in order to be better able to meet this new demand." Facilities in the new addition will be devoted chiefly to spinning yarns of nylon, Orlon, dynel, dacron, acrilon and other fibers and blends.

SYLACAUGA, ALA.—The 1952 calendar of Avondal Mills of Alabama, being distributed this month through Avondale's sales offices, Southeastern Cottons, Inc., features 14 paintings by Douglas Crockwell. Each of these depicts some aspect of the life of Avondale's employees, and the series tells the story of Avondale's well-known partnership-with-people philosophy.

WINSTON-SALEM, N. C. — Washington Mills Co. next Spring will occupy a new plant which is now under construction near Dobson, N. C. The plant is being constructed by the Dobson Realty Co. and will be leased to the textile concern, which will manufacture men's and boys' lightweight underwear, employing several hundred persons.

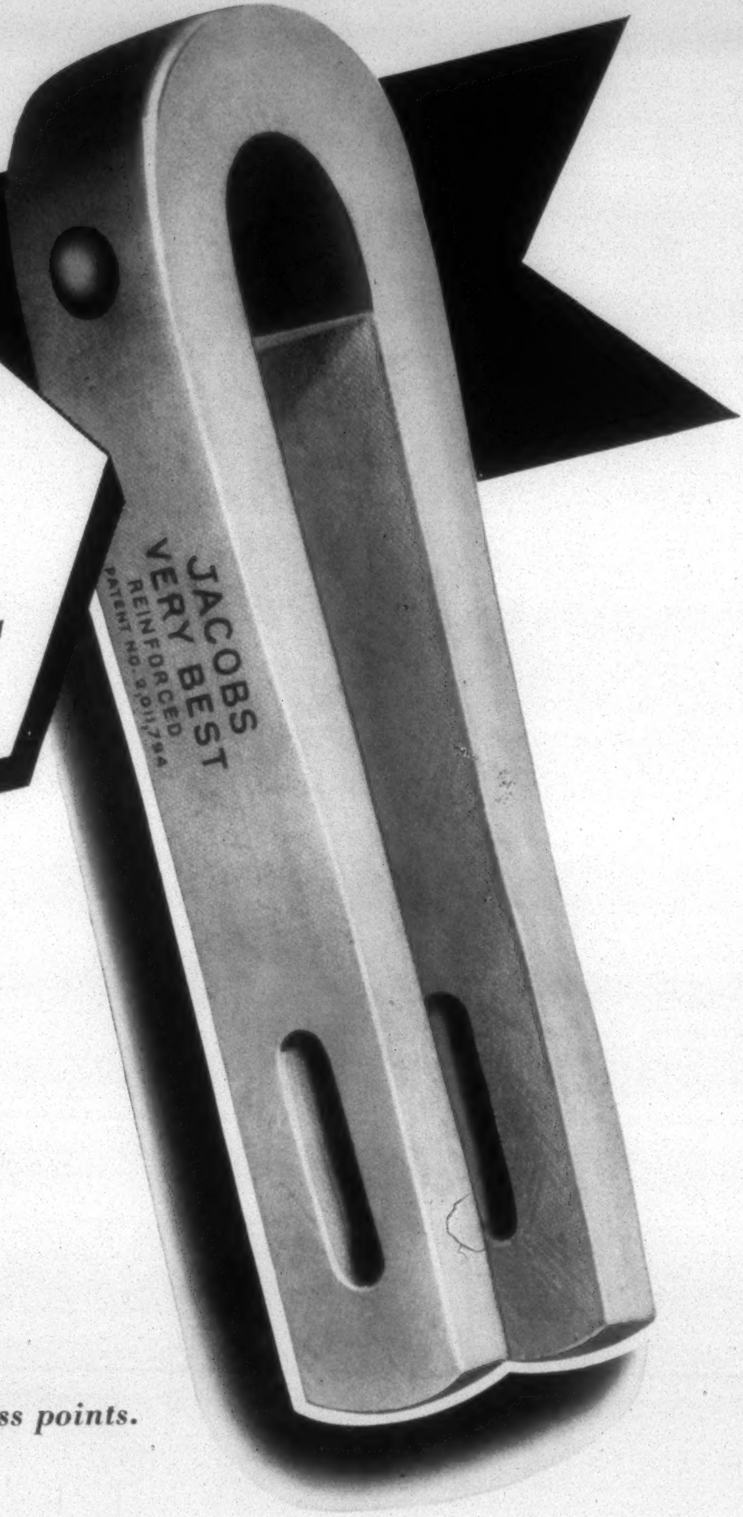
Index to Advertising

	Page
—A—	
Aldrich Machine Works	56
Allen Beam Co.	89
Americoat Corp.	9
American Viscose Corp.	41
Armstrong Cork Co.	38 and 39
—B—	
Bachmann Uxbridge Worsted Corp.	23
Bahan Textile Machinery Co.	30 and 106
Baily & Co., Inc., Joshua L.	130
Barber-Colman Co.	6
Barkley Machine Works	121
Barreled Sunlight Paint Co.	7
Barry & Co., Inc., B. J.	130
Best & Co., Inc., Edward H.	93
Biberstein, Bowles & Meacham, Inc.	123
Booth Co., Benjamin	109
Borne Scrymser Co.	81
Bradley Flyer & Repair Co.	131
Bridge & Sons Co., John	127
Bryant Electric Repair Co., Inc.	99
Bullard Clark Co., The	84 and 141
Burkart-Schier Chemical Co.	129
—C—	
Carolina Loom Reed Co.	117
Carolina Refractories Co.	129
Carter Traveler Co. (Div. of A. B. Carter, Inc.)	77
Chapman Electric Neutralizer Co.	120
Charlotte Leather Belting Co.	52
Ciba Co., Inc.	11
Clinton Foods Inc.	102
Cole Mfg. Co., R. D.	91
Commercial Factors Corp.	3
Crompton & Knowles Loom Works	8
—D—	
Daniels, Inc., C. R.	16
Dillard Paper Co.	33
Dixie Textile Machine Co.	89
Draper Corp.	2
Dronsfield Bros.	138
—E—	
Eaton & Bell	136
Emmons Loom Harness Co.	35
Excel Textile Supply Co.	112
—F—	
Fairbanks Co.	14
Felters Mfg. Co.	15
Ferguson Gear Co.	101
Forbes Co., Walter T.	119
Foster Machine Co.	18
—G—	
Gastonia Brush Co.	121
Gastonia Mill Supply Co.	138
Gastonia Roller, Flyer & Spindle Co.	115
Gastonia Textile Machinery Co.	108
Gastonia Textile Sheet Metal Works, Inc.	20
General Asbestos Rubber Div. of Raybestos-Manhattan, Inc.	102
General Coal Co.	13
General Dyestuff Corp.	29
Gossett Machine Works	17
Greensboro Loom Reed Co.	93
Gulf Oil Corp. of Pa.	37
—H—	
Houghton & Co., E. F.	27
Houghton Top Co.	120
Howard Bros. Mfg. Co.	22
—I—	
Ideal Machine Co., Inc.	73
Industrial Electronics Corp.	99
Industrial Plastics, Inc.	26
Iselin-Jefferson Co., Inc.	131
—J—	
Jacobs Mfg. Co., The E. H. (Northern and Southern Divisions)	84 and 141
Jenkins Metal Shops, Inc.	75
—K—	
Keever Starch Co.	29
—L—	
Lambeth Rope Corp.	93
Landis, Inc., Oliver D.	Front Cover, 109 and 121
Laurel Soap Mfg. Co., Inc.	115
Lewith Machinery Corp., Wilson	136
Livermore Corp., H. F.	60
Loper, Ralph E.	129
—M—	
McCaskie, Inc., W. M.	138
McLeod Leather & Belting Co.	111
M-B Products	120 and 129
Medley Mfg. Co., Inc.	36
Mooresville Iron Works	127
—N—	
National Aniline Div., Allied Chem. & Dye Corp.	47
National Ring Traveler Co.	81
New England Bobbin & Shuttle Co.	91
N.Y. & N.J. Lubricant Co.	12
Norlander-Young Machine Co.	81
North, Inc., Frank G.	105
—O—	
Orr Felt & Blanket Co., The	Front Cover
—P—	
Pease & Co., J. N.	125
Penick & Ford, Ltd., Inc.	89
Perfecting Service Co.	117
Perkins & Son, Inc., B. F.	46
Philadelphia Quartz Co.	113
Piedmont Processing Co.	130
Pilot Life Insurance Co.	99
Pioneer Heddle & Reed Co.	118
Pneumafil Corp.	24 and 25
Precision Gear & Machine Co.	102
—R—	
Raybestos-Manhattan, Inc.	102
Raymond Service, Inc., Chas. P.	137
Reiner, Inc., Robert	43
Rice Dobby Chain Co.	91
Robert & Co., Associates	127
Rose & Co., E. F.	138
Roy & Son Co., B. S.	83
—S—	
Saco-Lowell Shops	50
Sargent's Sons Corp., C. G.	115
Schmidt Mfg. Co.	123
Seydel-Woolley & Co.	125
Sherwin-Williams Co., The	45
Signal Sales Co., Inc.	116
Sinclair Refining Co.	4 and 5
Sindar Corp.	125
Sirrine Co., J. E.	131
Slip-Not Belting Corp.	95
Sonoco Products Co.	70
Southeastern Sound & Electronics Corp.	120
Southern Electric Service Co.	101
Southern Shuttles Div. (Steel Heddle Mfg. Co.)	53 and 59
Standard Mill Supply Inc.	136
Stanley Works, The	107
Steel Heddle Mfg. Co. and Southern Shuttles Div.	58 and 59
Sterling Ring Traveler Co.	83
Stevens & Co., Inc., J. P.	130
—T—	
Textile Apron Co.	77
Textile Laboratories	127
Textile Shops, The	138
Thornburg Machine Works, Inc.	83
Tide Water Associated Oil Co.	19
Tower Iron Works	123
—U—	
U S Bobbin & Shuttle Co.	57
—V—	
Valentine Co., J. W.	131
Veeder-Root, Inc.	Back Cover
Vogel Co., Joseph A.	101
—W—	
WAK Industries, Inc.	138
Warwick Chemical Corp.	21
Watson-Williams Mfg. Co.	95
West Point Foundry & Machine Co.	49
Westcavo Chem. Div. Food Machy. & Chem. Corp.	51
Whitin Machine Works	55
Whitinsville Spinning Ring Co.	53
Wilkin & Matthews	104
Wilson Co., Emil V.	48
Wolf & Co., Jacques	54

SPECIFY

JACOBS

"VERYBEST"



—the Lug Strap built to deliver maximum performance on high speed looms.

Reinforced at all wear and stress points.

THE BULLARD CLARK COMPANY

JACOBS

SOUTHERN
Division
Charlotte, N. C.

NORTHERN
Division
Danielson, Conn.

Small Reset Counter

Magnetic Counter

HERE'S THE MARK

You Can Count On

...on all types of textile counters

Whatever type of counters you need, for any machines from pickers to looms and knitting machines, it pays to remember this:

> You can get Veeder-Root standards of design, engineering, quality in manufacturing, and dependability in operation . . . only in *Veeder-Root Counters.*

And when it comes to the need for experienced, prompt service . . . well, there again Veeder-Root is "The Name That Counts." Just get in touch with the nearest V-R branch office.

2-3 Knitting Machine Counter

Loom Cut Meter

General Pur Counter

2-3 Pick Counter

Double-Wheel [illegible] Counter

2-3 Hank Counter

VEEDER-ROOT INCORPORATED

HARTFORD 2, CONNECTICUT • GREENVILLE, SO. CAROLINA

"*Counting House of the Textile Industry*"

Montreal; Canada; Dundee, Scotland; Offices & Agents in Principal Cities